STIC Search Report
Biotech-Chem Library

STIC Database Tracking Number: 166365

TO: Yong Chong **Location: rem/4A60/4B18** **Art Unit: 1617** **Thursday, October 06, 2005** **Case Serial Number: 10/627398**	**From: Alex Waclawiw** **Location: Biotech-Chem Library** **Rem 1A71** **Phone: 272-2534** **Alexandra.waclawiw@uspto.gov**

Search Notes

ACCESS DB # 166985

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Scientific and Technical Information Center

SEARCH REQUEST FORM

Requester's Full Name: Yong Chong Examiner # : 80875 Date: 9/27/05
Art Unit: 1617 Phone Number: 2-8513 Serial Number: 10/627,398
Location (Bldg/Room#): REM4A60 (Mailbox #): 4B18 Results Format Preferred (circle): PAPER DISK

****

MEP

To ensure an efficient and quality search, please attach a copy of the cover sheet, claims, and abstract or fill out the following:

Title of Invention: _____

Inventors (please provide full names): _____

_____

Earliest Priority Date: _____

Search Topic:
Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known.

For Sequence Searches Only *Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Applicant elects claims 16-18, 21, 24, 39-43

****

STAFF USE ONLY

Searcher: _____ Point of Contact:
Searcher Phone #: Alexandra Waclawiw
Searcher Location: Technical Info. Specialist
Date Searcher Picked Up: 10-3-05
Date Completed: 10-6-05
Searcher Prep & Review Time: 13
Online Time: 48

Type of Search

_____ NA Sequence (#)
_____ AA Sequence (#)
1 Structure (#)
_____ Bibliographic
_____ Litigation
_____ Fulltext
_____ Other

Vendors and cost where applicable

✓ STN _____ Dialog
_____ Questel/Orbit _____ Lexis/Nexis
_____ Westlaw _____ WWW/Internet
____ In-house sequence systems
____ Commercial ____ Oligomer ____ Score/Length
____ Interference ____ SPDI ____ Encode/Transl
_____ Other (specify)

=> d his ful

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     FILE 'REGISTRY' ENTERED AT 10:13:55 ON 06 OCT 2005
L1             STR 608-07-1
L2          62 SEA FAM FUL L1
               SAVE L2 TEMP CHONG2/A

     FILE 'CAPLUS' ENTERED AT 10:15:13 ON 06 OCT 2005
L3        1777 SEA ABB=ON  PLU=ON  L2
               E HEART, DISEASE/CT
               E E3+ALL
L4       90476 SEA ABB=ON  PLU=ON  HEART/OBI (L) (DISEASE#/OBI OR DISORDER#/OB
               I)
L5          15 SEA ABB=ON  PLU=ON  L3 AND L4
L6        6313 SEA ABB=ON  PLU=ON  CARDIOPROTECT?/OBI
L7           1 SEA ABB=ON  PLU=ON  L3 AND L6
L8          15 SEA ABB=ON  PLU=ON  L5 OR L7
               D SCAN TI
L9          18 SEA ABB=ON  PLU=ON  L3 AND CARDIO?/OBI
L10         26 SEA ABB=ON  PLU=ON  L9 OR L8
L11         11 SEA ABB=ON  PLU=ON  L10 NOT L8
               D SCAN TI
L12     246902 SEA ABB=ON  PLU=ON  HEART/OBI
L13         55 SEA ABB=ON  PLU=ON  L3 AND L12
L14         16 SEA ABB=ON  PLU=ON  L12 (L) L3
L15       8759 SEA ABB=ON  PLU=ON  RADICAL/OBI (L) SCAVENGER?/OBI
L16         14 SEA ABB=ON  PLU=ON  L15 AND L3
L17          1 SEA ABB=ON  PLU=ON  L16 AND L12
               D SCAN
L18        112 SEA ABB=ON  PLU=ON  L3 (L) ((PAC OR THU )/RL OR TREAT?/OBI OR
               THERAP?/OBI)
L19          8 SEA ABB=ON  PLU=ON  L18 AND (L6 OR L12 OR CARDIO?/OBI)
L20          4 SEA ABB=ON  PLU=ON  L15 AND L18
L21         11 SEA ABB=ON  PLU=ON  L19 OR L20
L22        695 SEA ABB=ON  PLU=ON  MUKHERJEE R?/AU
L23       5998 SEA ABB=ON  PLU=ON  SINGH A?/AU
L24         26 SEA ABB=ON  PLU=ON  DUTTA K/AU
L25        134 SEA ABB=ON  PLU=ON  DUTTA K?/AU
L26         15 SEA ABB=ON  PLU=ON  KHATTAR D?/AU
L27         62 SEA ABB=ON  PLU=ON  BURMAN A?/AU
L28       6837 SEA ABB=ON  PLU=ON  (L22 OR L23 OR L24 OR L25 OR L26 OR L27)
L29          1 SEA ABB=ON  PLU=ON  L28 AND L3
               D SCAN
L30         11 SEA ABB=ON  PLU=ON  L29 OR L21

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L31        500 SEA ABB=ON  PLU=ON  L2
               D TI 1-10
               D CT
               E  5-METHOXYTRYPTAMINE/CT
               E E3+ALL
L32        500 SEA ABB=ON  PLU=ON  5-METHOXYTRYPTAMINE/CT
L33        500 SEA ABB=ON  PLU=ON  L32 OR L31
               E CARDIOPROTECT/CT
               E E4+ALL
               E CARDIOPROTECT/CT
               E E5+ALL
               E E2+ALL
               E HEART DISEASE/CT
               E E10+ALL
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L34      562762 SEA ABB=ON  PLU=ON  HEART DISEASES+NT/CT
L35           4 SEA ABB=ON  PLU=ON  L34 AND L33
L36     1211633 SEA ABB=ON  PLU=ON  CARDIOVASCULAR DISEASES+NT/CT
L37           9 SEA ABB=ON  PLU=ON  L36 AND L33
L38         304 SEA ABB=ON  PLU=ON  MUKHERJEE R?/AU
L39        2542 SEA ABB=ON  PLU=ON  SINGH A?/AU
L40          83 SEA ABB=ON  PLU=ON  DUTTA K?/AU
L41           1 SEA ABB=ON  PLU=ON  KHATTAR D?/AU
L42          21 SEA ABB=ON  PLU=ON  BURMAN A?/AU
L43        2942 SEA ABB=ON  PLU=ON  (L38 OR L39 OR L40 OR L41 OR L42)
L44           0 SEA ABB=ON  PLU=ON  L43 AND L33
L45         197 SEA ABB=ON  PLU=ON  L34 AND L43
L46       20663 SEA ABB=ON  PLU=ON  SCAVENGER?
L47           0 SEA ABB=ON  PLU=ON  L45 AND L46

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L48        1047 SEA ABB=ON  PLU=ON  L2
                E 5-METHOXYTRYPTAMINE/CT
L49        1047 SEA ABB=ON  PLU=ON  5 METHOXYTRYPTAMINE/CT
L50        1047 SEA ABB=ON  PLU=ON  L49 OR L48
                E HEART DISEASES/CT
                E HEART DISEASE/CT
                E E3+ALL
L51     1138843 SEA ABB=ON  PLU=ON  CARDIOVASCULAR DISEASE+NT/CT
L52          31 SEA ABB=ON  PLU=ON  L51 AND L50
L53      500716 SEA ABB=ON  PLU=ON  HEART DISEASE+NT/CT
L54          20 SEA ABB=ON  PLU=ON  L50 AND L53
L55         593 SEA ABB=ON  PLU=ON  L49/MAJ
L56          11 SEA ABB=ON  PLU=ON  L52 AND L55
L57      368050 SEA ABB=ON  PLU=ON  L53/MAJ
L58           9 SEA ABB=ON  PLU=ON  L57 AND L50
L59          17 SEA ABB=ON  PLU=ON  L58 OR L56
L60         294 SEA ABB=ON  PLU=ON  MUKHERJEE R?/AU
L61        2426 SEA ABB=ON  PLU=ON  SINGH A?/AU
L62          59 SEA ABB=ON  PLU=ON  DUTTA K?/AU
L63         190 SEA ABB=ON  PLU=ON  SHUKLA A?/AU
L64           1 SEA ABB=ON  PLU=ON  KHATTAR D?/AU
L65          15 SEA ABB=ON  PLU=ON  BURMAN A?/AU
L66        2979 SEA ABB=ON  PLU=ON  (L60 OR L61 OR L62 OR L63 OR L64 OR L65)
L67           0 SEA ABB=ON  PLU=ON  L66 AND L50
L68           0 SEA ABB=ON  PLU=ON  L67 AND L53
L69       24288 SEA ABB=ON  PLU=ON  SCAVENG?
L70          13 SEA ABB=ON  PLU=ON  L66 AND L69
L71        7295 SEA ABB=ON  PLU=ON  SCAVENGER/CT
L72           7 SEA ABB=ON  PLU=ON  L71 AND L70
L73           7 SEA ABB=ON  PLU=ON  L72 NOT L59

     FILE 'CAPLUS, MEDLINE, EMBASE' ENTERED AT 10:42:54 ON 06 OCT 2005
L74          36 DUP REM L30 L37 L59 (1 DUPLICATE REMOVED)
                    ANSWERS '1-11' FROM FILE CAPLUS
                    ANSWERS '12-20' FROM FILE MEDLINE
                    ANSWERS '21-36' FROM FILE EMBASE
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=> fil reg
FILE 'REGISTRY' ENTERED AT 10:43:28 ON 06 OCT 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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STRUCTURE FILE UPDATES:    5 OCT 2005  HIGHEST RN 864628-18-2
DICTIONARY FILE UPDATES:   5 OCT 2005  HIGHEST RN 864628-18-2

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

*********************************************************************
*                                                                   *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added,   *
* effective March 20, 2005.  A new display format, IDERL, is now    *
* available and contains the CA role and document type information. *
*                                                                   *
*********************************************************************

Structure search iteration limits have been increased.  See HELP SLIMITS
for details.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/DBSS/registryss.html

=> d que stat l2
L1                  STR
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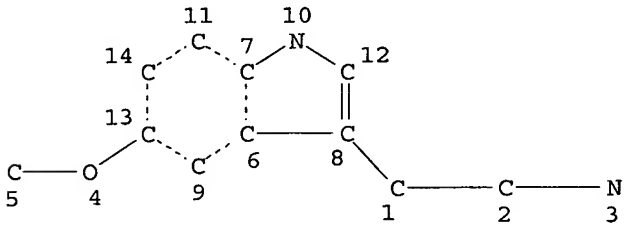


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NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  14

STEREO ATTRIBUTES: NONE
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L2 62 SEA FILE=REGISTRY FAM FUL L1

100.0% PROCESSED 2340 ITERATIONS 62 ANSWERS
SEARCH TIME: 00.00.01

=> fil caplus medline embase
FILE 'CAPLUS' ENTERED AT 10:43:46 ON 06 OCT 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE 'MEDLINE' ENTERED AT 10:43:46 ON 06 OCT 2005

FILE 'EMBASE' ENTERED AT 10:43:46 ON 06 OCT 2005
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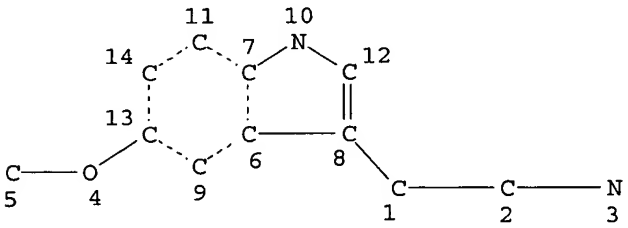
=> d que l74
L1 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE

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L3	1777	SEA	FILE=CAPLUS	ABB=ON PLU=ON	L2
L6	6313	SEA	FILE=CAPLUS	ABB=ON PLU=ON	CARDIOPROTECT?/OBI
L12	246902	SEA	FILE=CAPLUS	ABB=ON PLU=ON	HEART/OBI
L15	8759	SEA	FILE=CAPLUS	ABB=ON PLU=ON	RADICAL/OBI (L) SCAVENGER?/OBI
L18	112	SEA	FILE=CAPLUS	ABB=ON PLU=ON	L3 (L) ((PAC OR THU)/RL OR TREAT?/OBI OR THERAP?/OBI)
L19	8	SEA	FILE=CAPLUS	ABB=ON PLU=ON	L18 AND (L6 OR L12 OR CARDIO?/OBI)
L20	4	SEA	FILE=CAPLUS	ABB=ON PLU=ON	L15 AND L18
L21	11	SEA	FILE=CAPLUS	ABB=ON PLU=ON	L19 OR L20
L22	695	SEA	FILE=CAPLUS	ABB=ON PLU=ON	MUKHERJEE R?/AU
L23	5998	SEA	FILE=CAPLUS	ABB=ON PLU=ON	SINGH A?/AU
L24	26	SEA	FILE=CAPLUS	ABB=ON PLU=ON	DUTTA K/AU
L25	134	SEA	FILE=CAPLUS	ABB=ON PLU=ON	DUTTA K?/AU
L26	15	SEA	FILE=CAPLUS	ABB=ON PLU=ON	KHATTAR D?/AU
L27	62	SEA	FILE=CAPLUS	ABB=ON PLU=ON	BURMAN A?/AU
L28	6837	SEA	FILE=CAPLUS	ABB=ON PLU=ON	(L22 OR L23 OR L24 OR L25 OR L26 OR L27)
L29	1	SEA	FILE=CAPLUS	ABB=ON PLU=ON	L28 AND L3

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L30          11 SEA FILE=CAPLUS ABB=ON  PLU=ON  L29 OR L21
L31         500 SEA FILE=MEDLINE ABB=ON  PLU=ON  L2
L32         500 SEA FILE=MEDLINE ABB=ON  PLU=ON  5-METHOXYTRYPTAMINE/CT
L33         500 SEA FILE=MEDLINE ABB=ON  PLU=ON  L32 OR L31
L36     1211633 SEA FILE=MEDLINE ABB=ON  PLU=ON  CARDIOVASCULAR DISEASES+NT/CT

L37           9 SEA FILE=MEDLINE ABB=ON  PLU=ON  L36 AND L33
L48        1047 SEA FILE=EMBASE ABB=ON   PLU=ON  L2
L49        1047 SEA FILE=EMBASE ABB=ON   PLU=ON  5 METHOXYTRYPTAMINE/CT
L50        1047 SEA FILE=EMBASE ABB=ON   PLU=ON  L49 OR L48
L51     1138843 SEA FILE=EMBASE ABB=ON   PLU=ON  CARDIOVASCULAR DISEASE+NT/CT
L52          31 SEA FILE=EMBASE ABB=ON   PLU=ON  L51 AND L50
L53      500716 SEA FILE=EMBASE ABB=ON   PLU=ON  HEART DISEASE+NT/CT
L55         593 SEA FILE=EMBASE ABB=ON   PLU=ON  L49/MAJ
L56          11 SEA FILE=EMBASE ABB=ON   PLU=ON  L52 AND L55
L57      368050 SEA FILE=EMBASE ABB=ON   PLU=ON  L53/MAJ
L58           9 SEA FILE=EMBASE ABB=ON   PLU=ON  L57 AND L50
L59          17 SEA FILE=EMBASE ABB=ON   PLU=ON  L58 OR L56
L74          96 DUP REM L30 L37 L59 (1 DUPLICATE REMOVED)
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=> d que nos l73
L1             STR
L2            62 SEA FILE=REGISTRY FAM FUL L1
L48         1047 SEA FILE=EMBASE ABB=ON  PLU=ON  L2
L49         1047 SEA FILE=EMBASE ABB=ON  PLU=ON  5 METHOXYTRYPTAMINE/CT
L50         1047 SEA FILE=EMBASE ABB=ON  PLU=ON  L49 OR L48
L51      1138843 SEA FILE=EMBASE ABB=ON  PLU=ON  CARDIOVASCULAR DISEASE+NT/CT
L52           31 SEA FILE=EMBASE ABB=ON  PLU=ON  L51 AND L50
L53       500716 SEA FILE=EMBASE ABB=ON  PLU=ON  HEART DISEASE+NT/CT
L55          593 SEA FILE=EMBASE ABB=ON  PLU=ON  L49/MAJ
L56           11 SEA FILE=EMBASE ABB=ON  PLU=ON  L52 AND L55
L57       368050 SEA FILE=EMBASE ABB=ON  PLU=ON  L53/MAJ
L58            9 SEA FILE=EMBASE ABB=ON  PLU=ON  L57 AND L50
L59           17 SEA FILE=EMBASE ABB=ON  PLU=ON  L58 OR L56
L60          294 SEA FILE=EMBASE ABB=ON  PLU=ON  MUKHERJEE R?/AU
L61         2426 SEA FILE=EMBASE ABB=ON  PLU=ON  SINGH A?/AU
L62           59 SEA FILE=EMBASE ABB=ON  PLU=ON  DUTTA K?/AU
L63          190 SEA FILE=EMBASE ABB=ON  PLU=ON  SHUKLA A?/AU
L64            1 SEA FILE=EMBASE ABB=ON  PLU=ON  KHATTAR D?/AU
L65           15 SEA FILE=EMBASE ABB=ON  PLU=ON  BURMAN A?/AU
L66         2979 SEA FILE=EMBASE ABB=ON  PLU=ON  (L60 OR L61 OR L62 OR L63 OR
               L64 OR L65)
L69        24288 SEA FILE=EMBASE ABB=ON  PLU=ON  SCAVENG?
L70           13 SEA FILE=EMBASE ABB=ON  PLU=ON  L66 AND L69
L71         7295 SEA FILE=EMBASE ABB=ON  PLU=ON  SCAVENGER/CT
L72            7 SEA FILE=EMBASE ABB=ON  PLU=ON  L71 AND L70
L73            7 SEA FILE=EMBASE ABB=ON  PLU=ON  L72 NOT L59
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=> d .ca hitstr l74 1-11;d ibib ab ct l74 12-36

L74 ANSWER 1 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2005:78249 CAPLUS
DOCUMENT NUMBER: 142:148792
TITLE: **Cardioprotective** agents comprising 5-methoxytryptamine
INVENTOR(S): **Mukherjee, Rama**; **Singh, Anu T.**; **Dutta, Kakali**; Maickap, G. C.; Shukla, Anil Kumar; **Khattar, Dhiraj**; **Burman, Anand C.**
PATENT ASSIGNEE(S): Dabur Research Foundation, India
SOURCE: U.S. Pat. Appl. Publ., 10 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005020666	A1	20050127	US 2003-627398	20030725
WO 2005009419	A2	20050203	WO 2004-IN216	20040719
WO 2005009419	A3	20050324		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-627398 A 20030725

ED Entered STN: 28 Jan 2005

AB The invention relates to pharmaceutical compns. comprising 5-methoxytryptamine (5-MT) or a salt thereof for the prevention and/or treatment of mammalian cardiac tissue damage. 5-MT and the salts thereof act as free radical scavengers in the prevention and/or treatment of mammalian cardiac tissue damage mediated by free oxygen radicals. Examples include effect of 5-MT on scavenging of free radicals in vitro and effect of 5-MT on lipid peroxidn. in live myocardial tissue.

IC ICM A61K031-405

INCL 514419000

CC 1-8 (Pharmacology)
Section cross-reference(s): 63

ST methoxytryptamine **cardioprotective** pharmaceutical

IT Drug delivery systems
(capsules; **cardioprotective** agents comprising 5-methoxytryptamine)

IT **Heart**, disease
Radical scavengers
(**cardioprotective** agents comprising 5-methoxytryptamine)

IT Cytoprotective agents
(**cardioprotective**; **cardioprotective** agents comprising 5-methoxytryptamine)

IT Drug delivery systems
(injections; **cardioprotective** agents comprising 5-methoxytryptamine)

IT 9054-89-1, Superoxide dismutase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(activity increase by; **cardioprotective** agents comprising 5-methoxytryptamine)

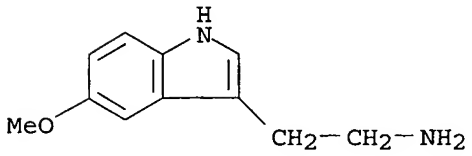
IT 25316-40-9, Adriamycin
RL: PAC (Pharmacological activity); BIOL (Biological study)
(**cardioprotective** agents comprising 5-methoxytryptamine)

IT **608-07-1**, 5-Methoxytryptamine
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(**cardioprotective** agents comprising 5-methoxytryptamine)

IT 9001-60-9, Lactate dehydrogenase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(decrease of; **cardioprotective** agents comprising 5-methoxytryptamine)

IT 9001-15-4
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(isoenzyme MB, decrease of; **cardioprotective** agents

comprising 5-methoxytryptamine)
IT **608-07-1**, 5-Methoxytryptamine
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(**cardioprotective** agents comprising 5-methoxytryptamine)
RN 608-07-1 CAPLUS
CN 1H-Indole-3-ethanamine, 5-methoxy- (9CI) (CA INDEX NAME)

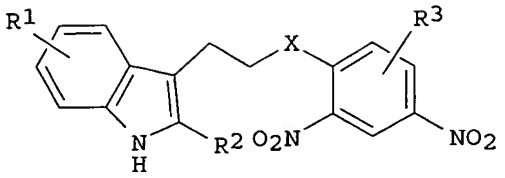


L74 ANSWER 2 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2005:78248 CAPLUS
DOCUMENT NUMBER: 142:155736
TITLE: Preparation and formulation of tryptamine derivatives for the treatment of melatoninergic diseases
INVENTOR(S): Zisapel, Nava; Laudon, Moshe
PATENT ASSIGNEE(S): Neurim Pharmaceuticals 1991 Ltd., Israel
SOURCE: U.S. Pat. Appl. Publ., 12 pp., Cont.-in-part of U.S. Ser. No. 381,976.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

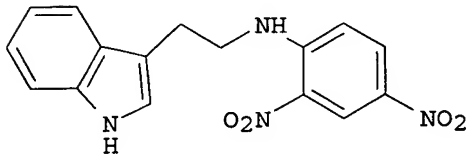
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005020664	A1	20050127	US 2004-921823	20040820
WO 2002028347	A2	20020411	WO 2001-IL898	20010925
WO 2002028347	A3	20020704		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004029950	A1	20040212	US 2003-381976	20030828
US 6780884	B2	20040824		

PRIORITY APPLN. INFO.: IL 2000-138825 A 20001003
WO 2001-IL898 W 20010925
US 2003-381976 A2 20030828

OTHER SOURCE(S): MARPAT 142:155736
ED Entered STN: 28 Jan 2005
GI



I



II

AB This invention relates to the administration of novel substituted tryptamines of formula I [R1-R3 = H, halo, alkyl, alkoxy, (substituted) amino, nitro, aryl, etc.; X = NH, N(alkyl), O, S] for the treatment of several types of medical conditions, such as prostate conditions, impotence, cardiovascular disorders, central nervous system and psychiatric disorders (such as sleep disorders, epilepsy and other convulsive disorders, anxiety, neurodegenerative diseases), chronobiol.-based disorders (such as jet lag, delayed sleep syndrome, shift-work-associated sleep disorder or seasonal affective disorder), endocrine indications, neoplastic conditions, conditions associated with senescence, ophthalmol. diseases, cluster headaches and migraines, and weight gain disorders. Thus, II (ML-25) was prepared from tryptamine and 2,4-dinitrofluorobenzene. Treatment of induced Parkinson's disease in common marmoset by II showed significant improvement of behaviors.

IC ICM A61K031-405

INCL 514414000; 514419000

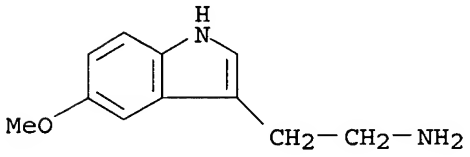
CC 26-9 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 1, 63

IT AIDS (disease)
Aging, animal
Cardiovascular system, disease
Contraceptives
Diabetes mellitus
Endocrine system, disease
Eye, disease
Human
Mental disorder
Neoplasm
Obesity
Parkinson's disease
Prostate gland, disease
Sleep disorders
(preparation of tryptamine derivs. for the treatment of melatoninergic diseases)

IT 61-54-1, Tryptamine 70-34-8, 2,4-Dinitrofluorobenzene 367-81-7, 2,4-Dinitro-5-fluoroaniline **608-07-1**, 5-Methoxytryptamine 712-09-4, 5-Methoxytryptophol 1548-18-1, 2,4-Dinitro-5-fluoroacetanilide 1821-47-2, 5-Methyltryptamine
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of tryptamine derivs. for the **treatment** of melatoninergic diseases)

IT **608-07-1**, 5-Methoxytryptamine
RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of tryptamine derivs. for the **treatment** of melatoninergic diseases)
RN 608-07-1 CAPLUS
CN 1H-Indole-3-ethanamine, 5-methoxy- (9CI) (CA INDEX NAME)

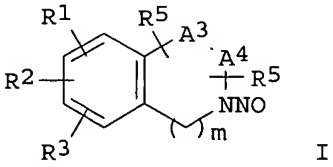


L74 ANSWER 3 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:817857 CAPLUS
DOCUMENT NUMBER: 141:332041
TITLE: Preparation of melatonin derivatives for treating neurological dysfunctions
INVENTOR(S): Schann, Stephan; Neuville, Pascal
PATENT ASSIGNEE(S): Faust Pharmaceuticals, Fr.
SOURCE: PCT Int. Appl., 67 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004085392	A1	20041007	WO 2004-EP3119	20040324
WO 2004085392	C1	20041223		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: EP 2003-360041 A 20030325
OTHER SOURCE(S): MARPAT 141:332041
ED Entered STN: 07 Oct 2004
GI



I

AB Title compds. [I; R1-R5 = H, (R6)nR7; R6 = alkylene optionally interrupted

by CO, CS, O, SO2, NH, etc.; R7 = CnH2n+1, cycloalkyl, Ph, cycloalkylimino, PhNH, cycloalkoxy, O, S, NO2, iodo, Br, Cl, F, CF3, OCF3, CO2H, SO3H, PO3H2, cyano, etc.; A3, A4 = C, N, O, S; A3 and A4 are joined by a single or double bond; m = 0-2; n = 0-6], were prepared Thus, N-[2-(1H-indol-3-yl)ethyl]acetamide in ice-cold HOAc was treated with aqueous NaNO2 to give 76% N-[2-(1-nitroso-1H-indol-3-yl)ethyl]acetamide. The latter at 10 μM in neurocubes had a significant effect on acetylcholine release.

IC ICM C07D209-14
ICS C07D209-18; C07D209-30; C07D209-32; C07D403-12; C07D405-12; C07D409-12

CC 27-11 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 1

IT **Heart**, disease
(arrhythmia, treatment; preparation of melatonin derivs. for treating neurol. dysfunctions)

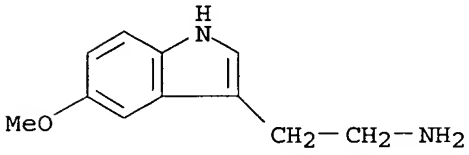
IT Analgesics
Anti-Alzheimer's agents
Antiarrhythmics
Anticonvulsants
Antidepressants
Antidiarrheals
Antiemetics
Antihypertensives
Antimigraine agents
Antiparkinsonian agents
Antipsychotics
Antiulcer agents
Anxiolytics
Cardiovascular agents
Cognition enhancers
Human
Laxatives
(preparation of melatonin derivs. for treating neurol. dysfunctions)

IT Alzheimer's disease
Amnesia
Anorexia
Anxiety
Bulimia
Cardiovascular system, disease
Convulsion
Diarrhea
Down's syndrome
Drug withdrawal
Eating disorders
Epilepsy
Hypertension
Hypoglycemia
Hypoxia
Ischemia
Multiple sclerosis
Neurotoxicity
Parkinson's disease
Pheochromocytoma
Schizophrenia
Spinal muscular atrophy
Ulcer
Vomiting
(treatment; preparation of melatonin derivs. for treating neurol. dysfunctions)

IT **66-83-1** 98-80-6, Phenylboronic acid 98-88-4, Benzoyl chloride 107-31-3, Methyl formate 108-24-7, Acetic anhydride **608-07-1**, 5-Methoxytryptamine 830-96-6, 1H-Indole-3-propanoic acid 1016-47-3 2619-02-5 2806-01-1 5720-06-9, 2-Methoxyphenylboronic acid 5720-07-0, 4-Methoxyphenylboronic acid 14490-05-2, 7-Methyltryptamine 22375-73-1 68062-88-4 79087-58-4 119623-06-2 138909-56-5 184960-24-5 293324-66-0 293324-75-1 727371-96-2 769187-03-3 769187-05-5 769187-08-8 769187-11-3 769187-14-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of melatonin derivs. for **treating** neurol. dysfunctions)

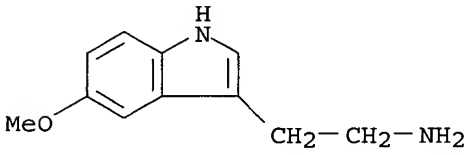
IT **66-83-1 608-07-1**, 5-Methoxytryptamine
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of melatonin derivs. for **treating** neurol. dysfunctions)

RN 66-83-1 CAPLUS
CN 1H-Indole-3-ethanamine, 5-methoxy-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 608-07-1 CAPLUS
CN 1H-Indole-3-ethanamine, 5-methoxy- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L74 ANSWER 4 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:452952 CAPLUS
DOCUMENT NUMBER: 141:1296
TITLE: Method of using a cyclooxygenase 2 (COX-2) inhibitor and a 5-HT1A receptor modulator as a combination therapy for pain, inflammation, and other conditions
INVENTOR(S): Stephenson, Diane T.; Taylor, Duncan P.
PATENT ASSIGNEE(S): Pharmacia Corporation, USA
SOURCE: PCT Int. Appl., 195 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004045509	A2	20040603	WO 2003-US35739	20031111
WO 2004045509	A3	20040826		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2004147581	A1	20040729	US 2003-702403	20031105
PRIORITY APPLN. INFO.:			US 2002-427198P	P 20021118

ED Entered STN: 04 Jun 2004

AB Compns. and methods to treat or prevent pain, inflammation, or inflammation-related disorder, as well as a neurol. disorder involving neurodegeneration involve a combination of a COX-2 inhibitor and a 5-HT1A receptor modulator.

IC ICM A61K

CC 1-12 (Pharmacology)
Section cross-reference(s): 63

IT AIDS (disease)
Aging, animal
Alcoholism
Alzheimer's disease
Amyloidosis
Analgesics
Anti-AIDS agents
Anti-Alzheimer's agents
Anti-inflammatory agents
Anti-ischemic agents
Antiarthritics
Anticonvulsants
Antidepressants
Antiemetics
Antiglaucoma agents
Antihypertensives
Antihypotensives
Antimigraine agents
Antiobesity agents
Antiparkinsonian agents
Antipsychotics
Antitumor agents
Anxiety
Anxiolytics
Apnea
Autoimmune disease
Bulimia
Cardiovascular agents
Cardiovascular system, disease
Cognition enhancers
Digestive tract, disease
Drug delivery systems
Drug dependence
Drug withdrawal

Dysmenorrhea
Eating disorders
Epilepsy
Gastrointestinal agents
Glaucoma (disease)
Hypertension
Hypotension
Immunostimulants
Immunosuppression
Inflammation
Insomnia
Learning disorders
Lupus erythematosus
Mental retardation
Movement disorders
Multiple sclerosis
Narcolepsy
Nervous system, disease
Nervous system agents
Obesity
Pain
Parkinson's disease
Phenylketonuria
Porphyria
Psychotropics
Seizures
Sleep disorders
Stress, animal
Tremor
(COX2 inhibitor-5-HT1A modulator combination for treatment of pain, inflammation, and other conditions)

IT **Heart**, disease
(infarction, neuroprotective effect for; COX2 inhibitor-5-HT1A modulator combination for treatment of pain, inflammation, and other conditions)

IT Blood pressure
Heart rate
(modification; COX2 inhibitor-5-HT1A modulator combination for treatment of pain, inflammation, and other conditions)

IT 50-33-9, Phenylbutazone, biological studies 50-37-3, Lysergic acid diethylamide 50-67-9, 5-Hydroxytryptamine, biological studies 50-78-2, Acetylsalicylic acid 53-86-1, Indomethacin 61-68-7, Mefenamic acid 63-36-5, Salicylate, biological studies 69-72-7, Salicylic acid, biological studies 75-04-7D, Ethylamine, heteroaryloxy derivs. 110-85-0D, Piperazine, derivs. 129-20-4, Oxyphenbutazone 288-14-2D, Isoxazole, derivs. 493-08-3D, Chroman, derivs. 504-70-1D, Pyrazolidine, derivs. 518-28-5D, Podophyllotoxin, derivs. 530-78-9, Flufenamic acid **608-07-1**, 5-Methoxytryptamine 644-62-2, Meclofenamic acid 1553-60-2, Ibufenac 4394-00-7, Niflumic acid 5003-48-5, Benorylate 5104-49-4, Flurbiprofen 13539-59-8, Azapropazone 13710-19-5, Tolfenamic acid 15307-86-5, Diclofenac 15687-27-1, Ibuprofen 17692-38-5, Fluprofen 18046-21-4, Fentiazac 21256-18-8, Oxaprozin 22071-15-4, Ketoprofen 22131-79-9, Alclofenac 22204-53-1, Naproxen 22494-27-5, Flufenisal 22494-42-4, Diflunisal 23779-99-9, Floctafenine 26171-23-3, Tolmetin 29679-58-1, Fenoprofen 30748-29-9, Feprazone 31793-07-4, Pirprofen 31842-01-0, Indoprofen 32808-51-8, Bucloxic acid 33005-95-7, Tiaprofenic acid 33369-31-2, Zomepirac 34042-85-8, Sudoxicam 34148-01-1, Clidanac 34552-84-6, Isoxicam 34645-84-6, Fenclofenac 36322-90-4, Piroxicam 36330-85-5, Fenbufen 36505-84-7, Buspirone 38194-50-2, Sulindac 39718-89-3, Alminoprofen

40198-53-6, Tioxaprofen 40828-46-4, Suprofen 41340-25-4, Etodolac
42779-82-8, Clopirac 42924-53-8, Nabumetone 51234-28-7, Benoxaprofen
52549-17-4, Pranoprofen 53164-05-9, Acemetacin 53716-49-7, Carprofen
55453-87-7, Isoxepac 55843-86-2, Miroprofen 56983-13-2, Furofenac
57132-53-3, Proglumetacin 59804-37-4, Tenoxicam 61212-47-3D,
Abeo-ergoline, derivs. 61220-69-7, Tiopinac 62851-43-8, Zidometacin
64425-90-7, Choline magnesium trisalicylate, biological studies
71125-38-7, Meloxicam 74103-06-3, Ketorolac 78950-78-4, 8-OH-DPAT
82900-57-0, BP 554 83928-76-1, Gepirone 87760-53-0, Tandospirone
90101-16-9, Droxicam 95847-70-4, Ipsapirone 98206-10-1, Flesinoxan
98224-03-4, Eltoprazine 102771-12-0, Nerisopam 102908-59-8,
Binospirone 105565-56-8, BMS 181100 107008-28-6, RU 24969
113777-33-6, MDL 72832 114298-18-9, Zalospirone 115994-31-5, LY 228729
123547-30-8, RWJ 25730 125481-61-0, 6-Hydroxybuspirone 127266-56-2,
Adatanserin 129592-83-2, AP-159 132449-46-8, Lesopitron 132873-34-8,
LY 274601 132873-35-9, LY 274600 133025-23-7, WAY 100135
135354-02-8, Xaliproden 135721-98-1, S 14506 135722-27-9, S 14671
137275-80-0 138298-79-0, Alnespirone 140221-50-7D, LY 41, derivs.
141318-62-9, LY 293284 141533-35-9, SDZ 216-525 144377-92-4, SM23997
144980-29-0, Repinotan 145969-30-8 146714-97-8 146939-27-7,
Ziprasidone 146998-34-7, S 15535 148408-65-5, Sunepitron
149494-37-1, Ebalzotan 151227-58-6 153607-44-4, S 14489 153607-45-5,
S15931 158836-71-6 159650-30-3, MDL 73975 161611-99-0 162011-90-7,
Rofecoxib 162581-80-8, LY 297996 162581-80-8D, LY 297996, derivs.
163465-69-8, CP 291952 163521-12-8, Vilazodone 167933-07-5,
Flibanserin 169590-41-4, Deracoxib 169590-42-5, Celecoxib
169758-66-1, Robalzotan 176219-00-4 179756-58-2, F11440 179756-85-5,
Eptapirone 180157-13-5, LY 333068 181695-72-7, Valdecoxib
182415-09-4, SUN-N4057 184675-01-2, NDL 249 187593-75-5, UH 301
198470-84-7, Parecoxib 202409-33-4, Etoricoxib 202754-51-6, A-74283
208109-39-1, F 13714 208110-64-9, F 13640 220991-20-8, Lumiracoxib
228579-02-0 257864-15-6, AZ 16596 257864-38-3, LY 315535
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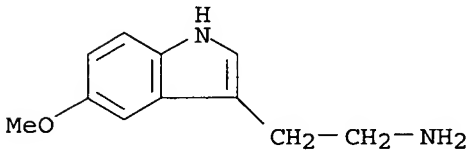
670 695184-57-7, BMS 181970 695184-71-5, E 5165 695184-72-6, E 6265
695184-74-8, LY 228730 695184-76-0, LY 433221 695184-78-2, Org 1301
695185-69-4, SEP 109235 695185-70-7, SR 59026 695185-73-0, R 137696
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(COX2 inhibitor-5-HT1A modulator combination for **treatment** of pain, inflammation, and other conditions)

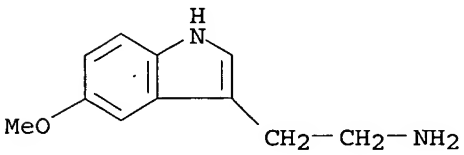
IT **608-07-1**, 5-Methoxytryptamine
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(COX2 inhibitor-5-HT1A modulator combination for **treatment** of pain, inflammation, and other conditions)

RN 608-07-1 CAPLUS
CN 1H-Indole-3-ethanamine, 5-methoxy- (9CI) (CA INDEX NAME)



L74 ANSWER 5 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:177757 CAPLUS
DOCUMENT NUMBER: 141:17527
TITLE: Endogenous and dietary indoles: A class of antioxidants and **radical scavengers** in the ABTS assay
AUTHOR(S): Herraiz, Tomas; Galisteo, Juan
CORPORATE SOURCE: Spanish Council for Scientific Research (CSIC), Instituto de Fermentaciones Industriales, Madrid, 28006, Spain
SOURCE: Free Radical Research (2004), 38(3), 323-331
CODEN: FRARER; ISSN: 1071-5762
PUBLISHER: Taylor & Francis Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 04 Mar 2004
AB Indoles are very common in the body and diet and participate in many biochem. processes. A total of twenty-nine indoles and analogs were examined for their properties as antioxidants and radical scavengers against 2,2'-Azino-bis(3-ethylbenzthiazoline-6-sulfonic acid) ABTS*+ radical cation. With only a few exceptions, indoles reacted nonspecifically and quenched this radical at physiol. pH affording ABTS. Indoleamines like tryptamine, serotonin and methoxytryptamine, neurohormones (melatonin), phytohormones (indoleacetic acid and indolepropionic acid), indoleamino acids like L-tryptophan and derivs. (N-acetyltryptophan, L-abrine, tryptophan Et ester), indolealcs. (tryptophol and indole-3-carbinol), short peptides containing tryptophan, and tetrahydro-β-carboline (pyridoindole) alkaloids like the pineal gland compound pinoline, acted as radical scavengers and antioxidants in an ABTS assay-measuring total antioxidant activity. Their trolox equivalent antioxidant capacity (TEAC) values ranged from 0.66 to 3.9 mM, usually higher than that for Trolox and ascorbic acid (1 mM). The highest antioxidant values were determined for melatonin, 5-hydroxytryptophan, trp-trp and 5-methoxytryptamine. Active indole compds. were consumed during the reaction with ABTS*+ and some tetrahydropyrido indoles (e.g. harmaline and 1-methyl-1,2,3,4-tetrahydro-β-carboline-3-carboxylic acid Et ester) afforded the corresponding fully aromatic β-carbolines (pyridoindoles), that did not scavenge ABTS*+. Radical scavenger activity of indoles against ABTS*+ was higher at physiol. pH than at low pH. These results point out to structural compds. with an indole moiety as a class of radical scavengers and antioxidants. This activity could be of biol. significance given the physiol. concns. and body distribution of some indoles.
CC 1-12 (Pharmacology)
Section cross-reference(s): 2, 17
ST indole antioxidant **radical scavenger** structure
melatonin oxidative stress ABTS
IT Antioxidants
Nutrients
Oxidative stress, biological
Radical scavengers
(ABTS assay measurement of antioxidant and **radical scavenger** activity of endogenous and dietary indoles)
IT Hormones, plant
Neurohormones
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ABTS assay measurement of antioxidant and **radical scavenger** activity of endogenous and dietary indoles)
IT Drug interactions
(additive; ABTS assay measurement of antioxidant and **radical**

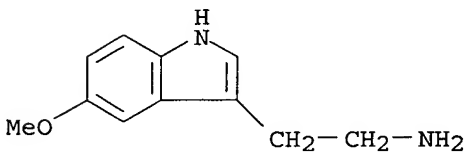
scavenger activity of endogenous and dietary indoles)
IT Structure-activity relationship
(antioxidant; ABTS assay measurement of antioxidant and **radical scavenger** activity of endogenous and dietary indoles)
IT Structure-activity relationship
(**radical** scavenging; ABTS assay measurement of antioxidant and **radical scavenger** activity of endogenous and dietary indoles)
IT 50-67-9, Serotonin, biological studies 50-81-7, Ascorbic acid, biological studies 61-54-1, Tryptamine 73-22-3, L-Tryptophan, biological studies 73-31-4, Melatonin 86-74-8, Carbazole 87-51-4, Indole-3-acetic acid, biological studies 87-52-5, Gramine 120-72-9, Indole, biological studies 154-23-4, Catechin 304-21-2, Harmaline 442-51-3, Harmine 487-89-8, Indole-3-aldehyde 496-15-1, Indoline 520-18-3, Kaempferol 526-31-8, L-Abrine 526-55-6, Tryptophol **608-07-1**, Methoxytryptamine 700-06-1, Indole-3-carbinol 830-96-6, Indole-3-propionic acid 1218-34-4, N-Acetyltryptophan 1477-50-5, Indole-2-carboxylic acid 4350-09-8, 5-Hydroxytryptophan 7479-05-2, Ethyl tryptophanate 16502-01-5, Tetrahydro-β-carboline 20315-68-8, Pinoline 20696-60-0 20762-31-6 39824-90-3 69954-48-9 78348-24-0, Indoline-2-carboxylic acid 108787-56-0
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(ABTS assay measurement of antioxidant and **radical scavenger** activity of endogenous and dietary indoles)
IT **608-07-1**, Methoxytryptamine
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(ABTS assay measurement of antioxidant and **radical scavenger** activity of endogenous and dietary indoles)
RN 608-07-1 CAPLUS
CN 1H-Indole-3-ethanamine, 5-methoxy- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L74 ANSWER 6 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:144207 CAPLUS
DOCUMENT NUMBER: 140:417228
TITLE: Selective scavenging property of the indole moiety for the nitrating species of peroxynitrite
AUTHOR(S): Nakagawa, Hidehiko; Takusagawa, Mitsuko; Arima, Hiromi; Furukawa, Kumiko; Kinoshita, Takeshi; Ozawa, Toshihiko; Ikota, Nobuo
CORPORATE SOURCE: Redox Regulation Research Group, National Institute of Radiological Sciences, Chiba, 263-8555, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (2004), 52(1), 146-149
CODEN: CPBTAL; ISSN: 0009-2363
PUBLISHER: Pharmaceutical Society of Japan
DOCUMENT TYPE: Journal

LANGUAGE: English
ED Entered STN: 23 Feb 2004
AB The inhibitory effect on tyrosine nitration and oxidation of peroxynitrite was evaluated for more than 40 reagents including natural and synthetic compds., and the inhibiting efficiency of each compound for nitration was compared with that for oxidation, to characterize its property as a peroxynitrite scavenger. In the presence of various concns. of testing compds., the nitrating and oxidizing activities were measured by monitoring the formation of 3-nitrotyrosine and dityrosine with an HPLC-UV-fluorescence detector. The IC50 values for nitration and oxidation were determined, and the ratio of these two IC50 values was calculated for each compound Although the IC50 values varied from compound to compound, it was revealed that the ratio of two IC50 values (IC50 for oxidation/IC50 for nitration) was 1 in almost all the compds. tested, except five indole derivs. (L-tryptophan, melatonin, 5-methoxytryptamine, tryptamine, and tetrahydro-beta-carboline) and one synthetic selenium-containing compound ((2R,3R,4S)-2-amino-3,4-dihydroxy-5-phenylselenopentan-1-ol, ADPP). The indole derivs. showed a specific inhibitory effect on tyrosine nitration without affecting the oxidation ADPP was confirmed to have a preferable inhibitory activity for tyrosine oxidation It was suggested that compds. showing an IC50 value ratio of 1 scavenged the common species for nitration and oxidation, while the indole derivs. and ADPP preferably scavenged the nitrating and oxidizing species, resp. From a stopped flow study, it was also revealed that the nitrotyrosine formation was relatively slow, unlike an OH radical reaction. These results imply that the peroxynirite reaction at least partly proceeds through specific species for nitration.
CC 1-3 (Pharmacology)
ST **radical scavenger** indole compd structure activity nitrogen species peroxynitrite
IT 61-54-1, Tryptamine 69-93-2, Uric acid, biological studies 70-18-8, Glutathione, biological studies 73-22-3, L-Tryptophan, biological studies 73-31-4, Melatonin 154-23-4 458-37-7, Curcumin 487-52-5 **608-07-1** 3376-24-7 7250-31-9 14919-82-5 16502-01-5 53188-07-1, Trolox 60816-66-2 148081-72-5 149607-79-4, MS-818 160455-95-8 217795-56-7 263327-87-3 426226-75-7 691889-58-4 693238-95-8
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(structure-activity relationship and scavenging property of indole compds. for nitrating species of peroxynitrite)
IT **608-07-1**
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(structure-activity relationship and scavenging property of indole compds. for nitrating species of peroxynitrite)
RN 608-07-1 CAPLUS
CN 1H-Indole-3-ethanamine, 5-methoxy- (9CI) (CA INDEX NAME)



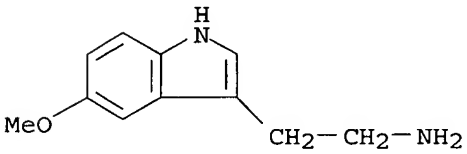
REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L74 ANSWER 7 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:309596 CAPLUS
DOCUMENT NUMBER: 141:343387
TITLE: Peroxynitrite Scavenging Activity of Indole Derivatives: Interaction of Indoles with Peroxynitrite
AUTHOR(S): Soung, Do Yu; Choi, Hye Rhi; Kim, Ji Young; No, Jae Kyung; Lee, Jee Hyun; Kim, Min Sun; Rhee, Sook Hee; Park, Jin Seng; Kim, Myung Jung; Yang, Ryung; Chung, Hae Young
CORPORATE SOURCE: College of Pharmacy, Pusan National University, Pusan, S. Korea
SOURCE: Journal of Medicinal Food (2004), 7(1), 84-89
CODEN: JMFOFJ; ISSN: 1096-620X
PUBLISHER: Mary Ann Liebert, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 16 Apr 2004
AB One of the products of nitrogen-derived free radicals, peroxynitrite (ONOO-), is formed by the reaction of superoxide anion (O•-) with nitric oxide (NO). ONOO- can cause damage to proteins and DNA through nitration. In particular, proteins and their constituent amino acids have been proven to be extremely sensitive to ONOO-. However, the lack of specific endogenous defense enzymes to protect against ONOO- has prompted many researchers to search for endogenous scavengers. We previously found 5-hydroxytryptamine (HT), which is an indole derivative (ID), to be an efficient ONOO- scavenger. In the present study, the interaction of several other indoles was further investigated: tryptophan (TRP), 5-hydroxy-L-tryptophan (HLT), HT, N-acetyl-5-hydroxytryptamine (AHT), 5-methoxyindole-3-acetate (MIA), 5-methoxytryptamine (MT), and melatonin. The ONOO- scavenging activity of ID was assayed by measuring the formation of oxidized dihydrorhodamine-123 (DHR-123). The scavenging efficacy was expressed as the IC50, denoting the concentration of each indole required to cause 50% inhibition of DHR-123 formation. In a sep. in vitro study, the protective effect of IDs against ONOO--induced nitration of bovine serum albumin (BSA) was investigated. Nitration was quantified using an immunoassay with a monoclonal anti-nitrotyrosine antibody, and a horseradish peroxidase-conjugated anti-mouse secondary antibody from sheep. The results revealed that the inhibitory activities of indoles were as follows: HLT, IC50=0.73 μM; HT, IC50=1.03 μM; and AHT, IC50=0.98 μM, showing relatively strong activities against ONOO-. Interestingly, TRP, MIA, MT, and melatonin were less effective. Regarding the protection of albumin by IDs, the data showed that the formation of ONOO- was inhibited in a dose-dependent manner. Further probing of the mode of the interaction of indoles revealed that the hydroxyl groups in IDs are required for the enhanced scavenging action. It was concluded that several indole derivs. with hydroxyl groups are effective scavengers against ONOO-, and that the scavenging efficacy depends on the presence of hydroxyl groups located within the indole ring structure.
CC 1-12 (Pharmacology)
Section cross-reference(s): 2
ST indole deriv peroxynitrite **radical scavenger** nitration albumin
IT Hydroxyl group
Radical scavengers
(indole derivs. HLT, AHT and HT showed most effective ONOO- free **radical** scavenging activity and significantly inhibited nitration of BSA in vitro than melatonin indicating requirement of OH group for optimal scavenging activity)
IT **608-07-1**, 5-Methoxytryptamine

RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(indole derivative 5-MT showed significantly lower peroxynitrite free radical scavenging activity than AHT, HT and HLT in vitro indicating requirement of OH group for optimal scavenging activity)

IT **608-07-1**, 5-Methoxytryptamine
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(indole derivative 5-MT showed significantly lower peroxynitrite free radical scavenging activity than AHT, HT and HLT in vitro indicating requirement of OH group for optimal scavenging activity)

RN 608-07-1 CAPLUS
CN 1H-Indole-3-ethanamine, 5-methoxy- (9CI) (CA INDEX NAME)



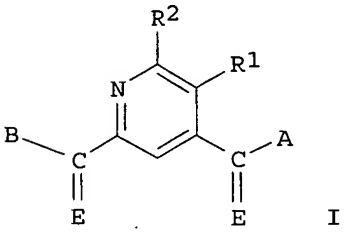
REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L74 ANSWER 8 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:637657 CAPLUS
DOCUMENT NUMBER: 137:185420
TITLE: Preparation of pyridinedicarboxamide and -dicarboxylic acid derivatives as selective MMP-13 matrix metalloproteinase inhibitors with therapeutic uses
INVENTOR(S): Barvian, Nicole Chantel; Connor, David Thomas; O'brien, Patrick Michael; Ortwine, Daniel Fred; Patt, William Chester; Shuler, Kevon Ray; Wilson, Michael William
PATENT ASSIGNEE(S): Warner-Lambert Company, USA
SOURCE: PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002064568	A1	20020822	WO 2002-IB345	20020204
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2434982	AA	20020822	CA 2002-2434982	20020204
EP 1362033	A1	20031119	EP 2002-716263	20020204
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

EE 200300391	A	20031215	EE 2003-391		20020204
BR 2002007863	A	20040427	BR 2002-7863		20020204
JP 2004529878	T2	20040930	JP 2002-564501		20020204
CN 1537101	A	20041013	CN 2002-804945		20020204
US 2002161000	A1	20021031	US 2002-71073		20020208
US 6881743	B2	20050419			
ZA 2003006041	A	20041105	ZA 2003-6041		20030805
NO 2003003570	A	20030812	NO 2003-3570		20030812
BG 108089	A	20050131	BG 2003-108089		20030813
US 2004209922	A1	20041021	US 2004-842863		20040510
PRIORITY APPLN. INFO.:			US 2001-268781P	P	20010214
			WO 2002-IB345	W	20020204
			US 2002-71073	A3	20020208

OTHER SOURCE(S): MARPAT 137:185420
ED Entered STN: 23 Aug 2002
GI



I

AB Selective MMP-13 inhibitors are pyridine derivs. (I; e.g. pyridine-2,4-dicarboxylic acid bis(3-methoxybenzylamide)) or a pharmaceutically acceptable salt thereof, wherein: R1 and R2 independently are H, halo, hydroxy, C1-C6 alkyl, C1-C6 alkoxy, C2-C6 alkenyl, C2-C6 alkynyl, NO2, NR4R5, CN, or CF3; E is independently O or S; A and B independently are OR4 or NR4R5; R4 and R5 independently are H, C1-C6 alkyl, C2-C6 alkenyl, C2-C6 alkynyl, (CH2)n aryl, (CH2)n cycloalkyl, (CH2)n heteroaryl, or R4 and R5 when taken together with the N to which they are attached complete a 3- to 8-membered ring containing C atoms and optionally containing a heteroatom selected from O, S, or NH, and optionally substituted or unsubstituted; n is 0 to 6. Although I and other Markush structures in the patent show 2,4- derivs., many specific 3,5- derivs. are included in the claims and examples. Combinatorial and non-combinatorial methods were used to prepare numerous claimed compds. and characterization data is reported for about 90 compds. IC50 values for various claimed compds. show the selectivity towards MMP-13 vs. MMP-1 and MMP-3 and the potent MMP-13 inhibitory activity (e.g. 0.033 μM for pyridine-2,4-dicarboxylic acid bis[((1,3-benzodioxol-5-yl)methyl)amide]).

IC ICM C07D213-80
ICS C07D213-81; C07D213-82; C07D521-00; C07D405-14; C07D409-14; C07D401-14; A61K031-4427; A61K031-44; A61P009-00; A61P019-00

CC 27-16 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 1, 63

IT **Heart**, disease
(failure; preparation of pyridine-2,4-dicarboxamide and -dicarboxylic acid derivs. as selective MMP-13 matrix metalloproteinase inhibitors with therapeutic uses)

IT Anti-inflammatory agents
Antiarthritics
Antirheumatic agents
Antitumor agents

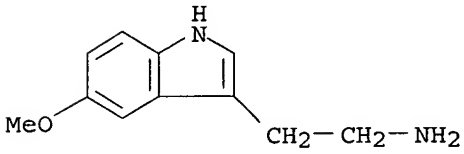
Cardiovascular agents
Combinatorial library
Drug delivery systems
Human
Inflammation
Neoplasm
Osteoarthritis
Rheumatoid arthritis
(preparation of pyridine-2,4-dicarboxamide and -dicarboxylic acid derivs. as selective MMP-13 matrix metalloproteinase inhibitors with therapeutic uses)

IT 51-67-2, [2-(4-Hydroxyphenyl)ethyl]amine 55-81-2, [2-(4-Methoxyphenyl)ethyl]amine 61-54-1, [2-(1H-Indol-3-yl)ethyl]amine 64-04-0, (Phenethyl)amine 89-93-0, 2-Methylbenzylamine 89-97-4, 2-Chlorobenzylamine 89-99-6, 2-Fluorobenzylamine 95-00-1, 2,4-Dichlorobenzylamine 100-46-9, Benzylamine, reactions 100-82-3, 3-Fluorobenzylamine 102-49-8, 3,4-Dichlorobenzylamine 104-84-7, 4-Methylbenzylamine 104-86-9, 4-Chlorobenzylamine 110-76-9, (2-Ethoxyethyl)amine 118-31-0, (Naphthalen-1-ylmethyl)amine 120-20-7, [2-(3,4-Dimethoxyphenyl)ethyl]amine 156-41-2, [2-(4-Chlorophenyl)ethyl]amine 156-43-4, (4-Ethoxyphenyl)amine 403-40-7, [1-(4-Fluorophenyl)ethyl]amine 582-22-9, (2-Phenylpropyl)amine **608-07-1**, [2-(5-Methoxy-1H-indol-3-yl)ethyl]amine 618-36-0, (1-Phenylethyl)amine 1924-77-2, [(Biphenyl)-2-ylmethyl]amine 2039-67-0, [2-(3-Methoxyphenyl)ethyl]amine 2045-79-6, [2-(2-Methoxyphenyl)ethyl]amine 2393-23-9, 4-Methoxybenzylamine 2620-50-0, ((1,3-Benzodioxol-5-yl)methyl)amine 2706-56-1, (2-(Pyridin-2-yl)ethyl)amine 2740-83-2, 3-Trifluoromethylbenzylamine 2941-20-0, (1-Phenylpropyl)amine 3048-01-9, 2-Trifluoromethylbenzylamine 3261-62-9, (2-p-Tolylethyl)amine 3300-51-4, 4-Trifluoromethylbenzylamine 3731-52-0, ((Pyridin-3-yl)methyl)amine 3731-53-1, ((Pyridin-4-yl)methyl)amine 4152-90-3, 3-Chlorobenzylamine 4393-09-3, 2,3-Dimethoxybenzylamine 4403-69-4, 2-Aminobenzylamine 4403-71-8, 4-Aminobenzylamine 5036-48-6, (3-Imidazol-1-ylpropyl)amine 5071-96-5, 3-Methoxybenzylamine 5586-73-2, (3,3-Diphenylpropyl)amine 5763-61-1, 3,4-Dimethoxybenzylamine 6315-89-5, (3,4-Dimethoxyphenyl)amine 6850-57-3, 2-Methoxybenzylamine 13078-79-0, [2-(3-Chlorophenyl)ethyl]amine 13214-66-9, (4-Phenylbutyl)amine 13258-63-4, (2-(Pyridin-4-yl)ethyl)amine 14003-16-8, (5-Methylfuran-2-ylmethyl)amine 14321-27-8 18638-99-8, 3,4,5-Trimethoxybenzylamine 19293-62-0, [Bis(4-methoxyphenyl)methyl]amine 20173-24-4, (2-(Pyridin-3-yl)ethyl)amine 20781-20-8, 2,4-Dimethoxybenzylamine 22374-89-6, (1-Methyl-3-phenylpropyl)amine 25611-78-3, (1,2-Diphenylethyl)amine 27757-85-3, (Thiophen-2-ylmethyl)amine 30433-91-1, (2-(Thiophen-2-yl)ethyl)amine 33403-97-3, (Ethyl)pyridin-4-ylmethylamine 34698-41-4, Indan-1-ylamine 34967-24-3, 3,5-Dimethoxybenzylamine 39989-43-0, 3,5-Dichlorobenzylamine 42882-31-5, (1-(Naphthalen-1-yl)ethyl)amine 52516-30-0, [2-(3-Trifluoromethylphenyl)ethyl]amine 52721-69-4, [2-(2-Fluorophenyl)ethyl]amine 55755-16-3, (2-o-Tolylethyl)amine 57062-14-3, Pyridine-2,4-dicarboxylic acid dichloride 62409-13-6, [1-(3-Methoxyphenyl)ethyl]amine 64353-29-3 67515-74-6, 4-Fluoro-3-trifluoromethylbenzylamine 72235-52-0, 2,4-Difluorobenzylamine 72235-56-4, 3-Chloro-4-fluorobenzylamine 73918-56-6, [2-(4-Bromophenyl)ethyl]amine 76935-60-9, [2-(2,4-Dimethylphenyl)ethyl]amine 76935-76-7, [2-(3-Ethoxyphenyl)ethyl]amine 85068-29-7, 3,5-Bis(trifluoromethyl)benzylamine 93071-75-1, 3-Trifluoromethoxybenzylamine 118468-16-9, [2-(2-Phenoxyphenyl)ethyl]amine 175205-64-8, 2-Trifluoromethoxybenzylamine 243863-36-7, 2-(Difluoromethoxy)benzylamine 244022-71-7, 3-(Difluoromethoxy)benzylamine

RL: CRT (Combinatorial reactant); RCT (Reactant); CMBI (Combinatorial study); RACT (Reactant or reagent)
(reactant; preparation of pyridine-2,4-dicarboxamide and -dicarboxylic acid derivs. as selective MMP-13 matrix metalloproteinase inhibitors with **therapeutic** uses)

IT **608-07-1**, [2-(5-Methoxy-1H-indol-3-yl)ethyl]amine
RL: CRT (Combinatorial reactant); RCT (Reactant); CMBI (Combinatorial study); RACT (Reactant or reagent)
(reactant; preparation of pyridine-2,4-dicarboxamide and -dicarboxylic acid derivs. as selective MMP-13 matrix metalloproteinase inhibitors with **therapeutic** uses)

RN 608-07-1 CAPLUS
CN 1H-Indole-3-ethanamine, 5-methoxy- (9CI) (CA INDEX NAME)



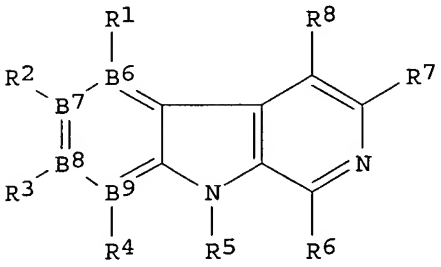
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L74 ANSWER 9 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:405760 CAPLUS
DOCUMENT NUMBER: 137:6093
TITLE: Preparation of substituted beta-carbolines as potential therapeutics in diseases associated with increased IκB kinase activity
INVENTOR(S): Ritzeler, Olaf; Castro, Alfredo; Grenier, Louis; Soucy, Francois; Hancock, Wayne W.; Mazdiyasni, Hormoz; Palombella, Vito; Adams, Julian
PATENT ASSIGNEE(S): Aventis Pharma Deutschland GmbH, Germany
SOURCE: Eur. Pat. Appl., 56 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1209158	A1	20020529	EP 2000-125169	20001118
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
CA 2402549	AA	20010920	CA 2001-2402549	20010228
WO 2001068648	A1	20010920	WO 2001-EP2237	20010228
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2001037418	A5	20010924	AU 2001-37418	20010228

BR 2001009161	A	20021126	BR 2001-9161		20010228
EP 1268477	A1	20030102	EP 2001-909799		20010228
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
JP 2003527394	T2	20030916	JP 2001-567739		20010228
EE 200200523	A	20040415	EE 2002-523		20010228
NZ 521386	A	20040625	NZ 2001-521386		20010228
US 2002099068	A1	20020725	US 2001-812785		20010315
US 6627637	B2	20030930			
NO 2002004338	A	20021105	NO 2002-4338		20020911
US 2004110759	A1	20040610	US 2003-627978		20030728
PRIORITY APPLN. INFO.:			EP 2000-105514	A	20000315
			EP 2000-125169	A	20001118
			WO 2001-EP2237	W	20010228
			US 2001-812785	A1	20010315

OTHER SOURCE(S): MARPAT 137:6093
ED Entered STN: 30 May 2002
GI



I

AB Carbolines I (B6, B7, B8, B9 = C, N, no more than 2 N's at the same time; R1-R4, R8 = H, halogen, OH, CN, sulfo, NO2, alkoxy, substituted amino, substituted amide, CO2H, substituted hydroxy, ketone, ester, aryl, O-aryl, substituted aryl, O-substituted aryl, alkyl, substituted alkyl, CF3, CF2CF3; R5 = H, alkyl, alkyl radical, ketone, sulfo; R6, R7 = H, halogen, OH, Me, O-alkyl, O-substituted alkyl, substituted amino) were prepared as potential therapeutics for diseases associated with increased activity of IκB kinase. Thus, norharmane was treated with bromine to give 7-bromo-β-carboline (II). II had an IC50 value of 0.4 μM in a IκB kinase in an assay using IκB kinase complex prepared from HeLa S3 cell exts.

IC ICM C07D471-04
ICS A61K031-44; A61P029-00

CC 27-16 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 1, 31, 63

IT Anti-AIDS agents
Anti-Alzheimer's agents
Antiarthritics
Antiasthmatics
Antitumor agents
Arthritis
Heart, disease
(preparation of substituted beta-carbolines as potential therapeutics in diseases associated with increased IκB kinase activity)

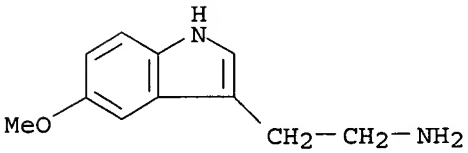
IT 79-03-8, Propionyl chloride 98-88-4, Benzoyl chloride 100-07-2, p-Anisoyl chloride 100-39-0, Benzyl bromide 105-36-2, Ethyl bromoacetate 108-12-3, Isovaleryl chloride 244-63-3, Norharmane 368-90-1, 4-Trifluoromethyl-phenylhydrazine 442-51-3, Harmine

575-85-9, 6-Fluorotryptamine **608-07-1**, 5-Methoxytryptamine 1711-05-3, m-Anisoyl chloride 1885-14-9, Phenyl chloroformate 2711-58-2, 5-Fluorotryptamine hydrochloride 3610-36-4, 6-Methoxytryptamine 5292-43-3, tert-Butyl bromoacetate 15159-40-7, 4-Morpholinecarbonyl chloride 19365-08-3 20260-53-1, Nicotinoyl chloride hydrochloride 32464-55-4 38870-89-2, Methoxyacetyl chloride 58757-38-3, 6-Chloronicotinoyl chloride 76903-88-3, 3,4-Difluorobenzoyl chloride 118427-29-5, 4-Isopropylphenylhydrazine hydrochloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of substituted beta-carbolines as potential **therapeutics** in diseases associated with increased IκB kinase activity)

IT **608-07-1**, 5-Methoxytryptamine
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of substituted beta-carbolines as potential **therapeutics** in diseases associated with increased IκB kinase activity)

RN 608-07-1 CAPLUS

CN 1H-Indole-3-ethanamine, 5-methoxy- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L74 ANSWER 10 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:922196 CAPLUS

DOCUMENT NUMBER: 136:241801

TITLE: Cloning and characterization of a novel human 5-HT4 receptor variant that lacks the alternatively spliced carboxy terminal exon. RT-PCR distribution in human brain and periphery of multiple 5-HT4 receptor variants

AUTHOR(S): Vilaro, M. T.; Domenech, T.; Palacios, J. M.; Mengod, G.

CORPORATE SOURCE: Department of Neurochemistry, Instituto Investigaciones Biomedicas de Barcelona, CSIC - IDIBAPS, Barcelona, 08036, Spain

SOURCE: Neuropharmacology (2002), 42(1), 60-73
CODEN: NEPHBW; ISSN: 0028-3908

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 21 Dec 2001

AB We have cloned a novel C-terminal splice variant of serotonin 5-HT4 receptors from human hippocampus. The deduced protein extends only one amino acid past the splicing point. We propose to call the novel variant h5-HT4(n) since it contains none of the C-terminal exons alternatively spliced in other variants. The pharmacol. profile of h5-HT4(n) stably expressed in HeLa cells is in agreement with other reported variants. Stably transfected cells showed increased basal levels of intracellular cAMP in absence of agonist, indicating constitutive activity of the expressed receptors. 5-HT induced robust increases of intracellular cAMP.

The 5-HT4 receptor antagonist GR 113808 blocked the effects of 5-HT and brought intracellular cAMP below basal constitutive levels, indicating inverse agonism of this compound in this system. The RT-PCR distribution of all known human C-terminal splice variants in human brain regions and periphery showed complex patterns of variant expression, with the novel variant h5-HT4(n) being widely and abundantly expressed.

CC 2-2 (Mammalian Hormones)
Section cross-reference(s): 3

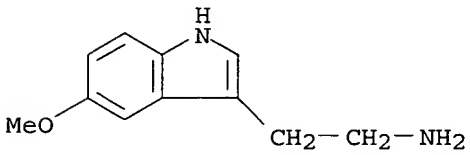
IT **Heart**
(atrium, right; cloning, pharmacol. characterization, and tissue distribution of a novel human 5-HT4 receptor variant that lacks alternatively spliced carboxy terminal exon)

IT **Heart**
(sinoatrial node; cloning, pharmacol. characterization, and tissue distribution of a novel human 5-HT4 receptor variant that lacks alternatively spliced carboxy terminal exon)

IT 50-67-9, Serotonin, biological studies **608-07-1**, 5-Methoxytryptamine 74050-98-9, Ketanserin 78950-78-4, 8-OH-DPAT 81098-60-4, Cisapride 89565-68-4, ICS205930 90182-92-6, Zacopride 144625-51-4, GR113808 148703-08-6, SB207710
RL: **PAC (Pharmacological activity)**; BIOL (Biological study)
(cloning, pharmacol. characterization, and tissue distribution of a novel human 5-HT4 receptor variant that lacks alternatively spliced carboxy terminal exon)

IT **608-07-1**, 5-Methoxytryptamine
RL: **PAC (Pharmacological activity)**; BIOL (Biological study)
(cloning, pharmacol. characterization, and tissue distribution of a novel human 5-HT4 receptor variant that lacks alternatively spliced carboxy terminal exon)

RN 608-07-1 CAPLUS
CN 1H-Indole-3-ethanamine, 5-methoxy- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L74 ANSWER 11 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1969:2017 CAPLUS
DOCUMENT NUMBER: 70:2017
TITLE: Antiarrhythmic properties of some indole alkylamines
AUTHOR(S): Rogova, L. S.; Gilev, A. P.
CORPORATE SOURCE: Novokuznetsk Res. Chem.-Pharm. Inst., Novokuznetsk, USSR
SOURCE: Byulleten Eksperimental'noi Biologii i Meditsiny (1968), 66(10), 58-60
CODEN: BEBMAE; ISSN: 0365-9615
DOCUMENT TYPE: Journal
LANGUAGE: Russian
ED Entered STN: 12 May 1984
AB Serotonin (5 mg./kg.) administered i.v. inhibited aconitine-induced arrhythmia in rats, arrhythmia induced by elec. stimulation of the atrium and stomach of cats, and arrhythmia developing during litigation of the

left coronary artery in dogs. K+ concentration increased and Na+ concentration decreased in the heart following serotonin administration to cats. 5-Methoxytryptamine (2.7 mg./kg., i.v.) also had a definite antiarrhythmic action in rats and dogs. Tryptamine (2.42 mg./kg.), α-methyltryptamine (2.5 mg./kg.), and dimethyltryptamine (5 and 15 mg./kg.) had no effect, suggesting that the antiarrhythmic properties of the straight-chain indolealkylamines require a substituent at position 5.

CC 15 (Pharmacodynamics)

ST antiarrhythmic drugs; arrhythmia inhibitors; serotonin arrhythmia; indoles arrhythmia; tryptamines arrhythmia; **heart** arrhythmia

IT **Heart**, diseases or disorders
(arrhythmia, indolealkylamine effect on)

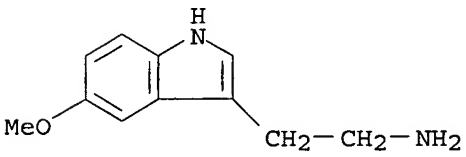
IT **608-07-1**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(antiarrhythmic activity of)

IT 50-67-9, biological studies
RL: BIOL (Biological study)
(**heart** arrhythmia inhibition by)

IT **608-07-1**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(antiarrhythmic activity of)

RN 608-07-1 CAPLUS

CN 1H-Indole-3-ethanamine, 5-methoxy- (9CI) (CA INDEX NAME)



L74 ANSWER 12 OF 36 MEDLINE on STN DUPLICATE 1

ACCESSION NUMBER: 97390352 MEDLINE

DOCUMENT NUMBER: PubMed ID: 9249256

TITLE: Characterization of putative 5-HT7 receptors mediating tachycardia in the cat.

AUTHOR: Villalon C M; Heiligers J P; Centurion D; De Vries P; Saxena P R

CORPORATE SOURCE: Department of Pharmacology, Faculty of Medicine and Health Sciences, Erasmus University, Rotterdam, The Netherlands.

SOURCE: British journal of pharmacology, (1997 Jul) 121 (6) 1187-95.
Journal code: 7502536. ISSN: 0007-1188.

PUB. COUNTRY: ENGLAND: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199710

ENTRY DATE: Entered STN: 19971021
Last Updated on STN: 19990129

Entered Medline: 19971008 rapid heart rate

AB 1. It has been suggested that the tachycardic response to 5-hydroxytryptamine (5-HT) in the spinal-transected cat is mediated by '5-HT1-like' receptors since this effect, being mimicked by 5-carboxamidotryptamine (5-CT), is not modified by ketanserin or MDL 72222, but it is blocked by methiothepin, methysergide or mesulergine. The present study was set out to reanalyse this suggestion in terms of the IUPHAR 5-HT receptor classification schemes proposed in 1994 and 1996. 2. Intravenous (i.v.) bolus injections of the tryptamine derivatives, 5-CT (0.01, 0.03, 0.1, 0.3, 1, 3, 10 and 30 microg kg(-1)), 5-HT (3, 10 and 30 microg kg(-1)) and 5-methoxytryptamine (3, 10 and 30 microg kg(-1)) as well as the atypical antipsychotic drug, clozapine (1000 and 3000 microg kg(-1)) resulted in dose-dependent increases in heart rate, with a rank order of agonist potency of 5-CT >> 5-HT > 5-methoxytryptamine >> clozapine. 3. The tachycardic effects of 5-HT and 5-methoxytryptamine were dose-dependently antagonized by i.v. administration of lisuride (30 and 100 microg kg(-1)), ergotamine (100 and 300 microg kg(-1)) or mesulergine (100, 300 and 1000 microg kg(-1)); the highest doses of these antagonists used also blocked the tachycardic effects of 5-CT. Clozapine (1000 and 3000 microg kg(-1)) did not affect the 5-HT-induced tachycardia, but attenuated, with its highest dose, the responses to 5-methoxytryptamine and 5-CT. However, these doses of clozapine as well as the high doses of ergotamine (300 microg kg(-1)) and mesulergine (300 and 1000 microg kg(-1)) also attenuated the tachycardic effects of isoprenaline. In contrast, 5-HT-, 5-methoxytryptamine- and 5-CT-induced tachycardia were not significantly modified after i.v. administration of physiological saline (0.1 and 0.3 ml kg(-1)), the 5-HT(1B/1D) receptor antagonist, GR127935 (500 microg kg(-1)) or the 5-HT(3/4) receptor antagonist, tropisetron (3000 microg kg(-1)). 4. Intravenous injections of the 5-HT1 receptor agonists, sumatriptan (30, 100 and 300 microg kg(-1)) and indorenate (300 and 1000 microg kg(-1)) or the 5-HT4 receptor (partial) agonist cisapride (300 and 1000 microg kg(-1)) were devoid of effects on feline heart rate per se and failed to modify significantly 5-HT-induced tachycardic responses. 5. Based upon the above rank order of agonist potency, the failure of sumatriptan, indorenate or cisapride to produce cardioacceleration and the blockade by a series of drugs showing high affinity for the cloned 5-ht7 receptor, the present results indicate that the 5-HT receptor mediating tachycardia in the cat is operationally similar to other putative 5-HT7 receptors mediating vascular and non-vascular responses (e.g. relaxation of the rabbit femoral vein, canine external carotid and coronary arteries, rat systemic vasculature and guinea-pig ileum). Since these responses represent functional correlates of the 5-ht7 gene product, the 5-HT7 receptor appellation is reinforced. Therefore, the present experimental model, which is not complicated by the presence of other 5-HT receptors, can be utilized to characterize and develop new drugs with potential agonist and antagonist properties at functional 5-HT7 receptors.

CT **5-Methoxytryptamine: AA, analogs & derivatives**
5-Methoxytryptamine: PD, pharmacology
Animals
Blood Pressure: DE, drug effects
Cats
Cisapride
Decerebrate State
Heart Rate: DE, drug effects
Piperidines: PD, pharmacology
*Receptors, Serotonin: ME, metabolism
Receptors, Serotonin: PH, physiology
Recombinant Proteins: ME, metabolism
Research Support, Non-U.S. Gov't

Serotonin Agonists: PD, pharmacology
Serotonin Antagonists: PD, pharmacology
Sumatriptan: PD, pharmacology
***Tachycardia: ME, metabolism**
Tachycardia: PP, physiopathology

L74 ANSWER 13 OF 36 MEDLINE on STN
ACCESSION NUMBER: 2002674608 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12434580
TITLE: Clinical safety and effectiveness of indorenate in essential hypertension.
AUTHOR: Huape-Arreola Sandra; Herrera-Abarca J E; Ruiz-Vega Humberto; Hong Enrique
CORPORATE SOURCE: Medicine School Dr. Ignacio Chavez, UMSNH, General Hospital Dr. Miguel Silva, SSM, 58000 Morelia, Michoacan, Mexico.. Tzutzul@yahoo.com
SOURCE: Proceedings of the Western Pharmacology Society, (2002) 45 197-8.
Journal code: 7505899. ISSN: 0083-8969.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200305
ENTRY DATE: Entered STN: 20021119
Last Updated on STN: 20030514
Entered Medline: 20030513
CT Check Tags: Female; Male
***5-Methoxytryptamine: AE, adverse effects**
***5-Methoxytryptamine: AA, analogs & derivatives**
***5-Methoxytryptamine: TU, therapeutic use**
Adult
Aged
*Antihypertensive Agents: AE, adverse effects
*Antihypertensive Agents: TU, therapeutic use
Blood Pressure: DE, drug effects
Electrocardiography
Heart Rate: DE, drug effects
Humans
***Hypertension: DT, drug therapy**
Middle Aged
Posture: PH, physiology
Research Support, Non-U.S. Gov't

L74 ANSWER 14 OF 36 MEDLINE on STN
ACCESSION NUMBER: 1999069598 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9852341
TITLE: Plasma levels of 5-HT and 5-HIAA increased after intestinal ischemia/reperfusion in rats.
AUTHOR: Teramoto Y; Urano T; Nagai N; Takada Y; Ikeda K; Takada A
CORPORATE SOURCE: Department of Anesthesiology and Intensive Care, Hamamatsu University School of Medicine, Hamamatsu, 431-3192, Japan.
SOURCE: Japanese journal of physiology, (1998 Oct) 48 (5) 333-9.
Journal code: 2985184R. ISSN: 0021-521X.
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199902
ENTRY DATE: Entered STN: 19990311

Last Updated on STN: 19990311
Entered Medline: 19990222

AB Intestinal ischemia/reperfusion (I/R) causes serious systemic injury, mainly from a variety of bioactive substances released from the injured intestine. To assess the possible roles of serotonin (5-hydroxytryptamine, 5-HT), a bioactive amine mainly stored in the intestine, in I/R injury, we assayed the levels of tryptophan, 5-HT, and 5-hydroxyindole acetic acid (5-HIAA) in the blood and intestine in a rat I/R model. Plasma 5-HT increased significantly over time after reperfusion; the plateau level was obtained 4 h after reperfusion and was associated with an increase in 5-HIAA. Plasma tryptophan levels declined gradually after reperfusion. The ratio of 5-HIAA/5-HT was significantly higher in I/R rats than in control rats, suggesting that elevated 5-HT was quickly metabolized in the systemic circulation. In the intestine, 5-HT decreased dramatically, whereas tryptophan increased. This phenomenon was prominent in the severely damaged intestine. These findings suggest that the injured intestine released large amounts of 5-HT, whereas its synthesis in the injured intestine was suppressed. An increase in 5-HT in the circulation may be related to various circulatory disturbances observed in humans after intestinal ischemia.

CT Check Tags: Male
5-Methoxytryptamine: PD, pharmacology
Animals
Dioxanes: PD, pharmacology
Disease Models, Animal
*Hydroxyindoleacetic Acid: BL, blood
*Intestines: BS, blood supply
Intestines: PA, pathology
Piperazines: PD, pharmacology
Piperidines: PD, pharmacology
Pyrimidines: PD, pharmacology
Rats
Rats, Wistar
***Reperfusion Injury: BL, blood**
Reperfusion Injury: ET, etiology
Reperfusion Injury: PA, pathology
Research Support, Non-U.S. Gov't
*Serotonin: BL, blood
Serotonin Agonists: PD, pharmacology
Serotonin Antagonists: PD, pharmacology

L74 ANSWER 15 OF 36 MEDLINE on STN
ACCESSION NUMBER: 96438734 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8841094
TITLE: GYKI-46 903, a non-competitive antagonist for 5-HT3 receptors.
AUTHOR: Csillik-Perczel V; Bakonyi A; Yemane T; Vitalis B; Horvath E; Solyom S; Szekely J I; Harsing L G Jr
CORPORATE SOURCE: Institute for Drug Research, Budapest, Hungary.
SOURCE: Pharmacology & toxicology, (1996 Jul) 79 (1) 32-9.
Journal code: 8702180. ISSN: 0901-9928.
PUB. COUNTRY: Denmark
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199701
ENTRY DATE: Entered STN: 19970219
Last Updated on STN: 19970219
Entered Medline: 19970129

AB The effects of GYKI-46 903 ((+)endo-4-propionyloxy-6-(4-fluorophenyl)-1-

azabicyclo [3.3.1]non-6-ene HCl), on 5-HT3 receptors have been studied and compared with ondansetron in peripheral organs in vitro and in vivo, and in a receptor binding assay in membranes prepared from rat cerebral cortex. GYKI-46 903 was found to be a non-competitive antagonist at 5-HT3 receptors present in non-stimulated longitudinal muscle strip of guinea-pig ileum (pD2' against serotonin = 5.54), and also in 5-methoxytryptamine-pretreated electrically stimulated ileal preparations (pD2' against serotonin = 5.26). On the contrary, ondansetron was found to be a competitive antagonist for 5-HT3 receptors; the pA2 value against serotonin was 7.40 in non-stimulated ileum, and it was 7.08 in electrically stimulated ileal preparation pretreated with 5-methoxytryptamine. In displacement studies, the pIC50 values of GYKI-46 903 and ondansetron against [3H]granisetron binding to rat cerebral cortex membranes were 6.91 and 8.58 respectively. GYKI-46 903, when administered by intravenous infusion, antagonized the decrease in heart rate evoked by serotonin (Bezold-Jarisch reflex) in anaesthetized rats, and the maximal reversal was less than 50%. This was in striking contrast with ondansetron, which, after intravenous injection, completely antagonized the serotonin-induced bradycardia with an ID50 value of 3.28 ug/kg. These data classify GYKI-46 903 as a non-competitive antagonist for 5-HT3 receptors.

CT Check Tags: Comparative Study; In Vitro; Male
5-Methoxytryptamine: PD, pharmacology
Animals
Bicyclo Compounds, Heterocyclic: AD, administration & dosage
*Bicyclo Compounds, Heterocyclic: PD, pharmacology
Bicyclo Compounds, Heterocyclic: TU, therapeutic use
Binding, Competitive
Bradycardia: DT, drug therapy
Cerebral Cortex: DE, drug effects
Cerebral Cortex: ME, metabolism
Electric Stimulation
Guinea Pigs
Heart Rate: DE, drug effects
Ileum: DE, drug effects
Ileum: ME, metabolism
Infusions, Intravenous
Muscle Contraction: DE, drug effects
*Muscle, Smooth: DE, drug effects
Ondansetron: AD, administration & dosage
Ondansetron: ME, metabolism
*Ondansetron: TO, toxicity
Radioligand Assay
Rats
Rats, Sprague-Dawley
*Receptors, Serotonin: DE, drug effects
Receptors, Serotonin: ME, metabolism
Receptors, Serotonin, 5-HT3
Research Support, Non-U.S. Gov't
Serotonin Antagonists: ME, metabolism
*Serotonin Antagonists: PD, pharmacology

L74 ANSWER 16 OF 36 MEDLINE on STN
ACCESSION NUMBER: 93267449 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8496821
TITLE: Pharmacological characterization of FK1052, a dihydropyridoindole derivative, as a new serotonin 3 and 4 dual receptor antagonist.
AUTHOR: Nagakura Y; Kadowaki M; Tokoro K; Tomoi M; Mori J; Kohsaka M

CORPORATE SOURCE: Department of Pharmacology, Fujisawa Pharmaceutical Co., Ltd., Osaka, Japan.
SOURCE: Journal of pharmacology and experimental therapeutics, (1993 May) 265 (2) 752-8.
Journal code: 0376362. ISSN: 0022-3565.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199306
ENTRY DATE: Entered STN: 19930702
Last Updated on STN: 19930702
Entered Medline: 19930622

AB (+)-8,9-Dihydro-10-dihydro-10-methyl-7-[(5-methyl-4-imidazolyl) methyl]pyrido-[1,2-a]indol-6(7H)-one hydrochloride (FK1052) is a newly designed and synthesized 5-hydroxytryptamine (5-HT)3 receptor antagonist with 5-HT4 receptor antagonistic activity. This compound, as well as ondansetron and granisetron, dose-dependently inhibited the von Bezold-Jarish reflex, a 5-HT3 receptor-mediated response, after intravenous (i.v.) and intraduodenal (i.d.) dosing to rats. The ID50 values showed FK1052 (0.28 microgram/kg, i.v., 5.23 micrograms/kg, i.d.) to be more potent than ondansetron (5.23 micrograms/kg, i.v., 170 micrograms/kg, i.d.) and granisetron (0.70 micrograms/kg, i.v., 66 micrograms/kg, i.d.). Furthermore, bioavailabilities of the test drugs by ID50 ratio (i.d./i.v.) showed that FK1052(17) was better absorbed than ondansetron(33) and granisetron(94) and possessed a similar duration of action to that of ondansetron and granisetron. We also examined the effects on 2-methyl-5-HT-, 5-HT- and 5-methoxytryptamine-induced contractions of guinea pig isolated ileum. FK1052, ondansetron and granisetron concentration-dependently inhibited 2-methyl-5-HT, a 5-HT3 agonist-induced contraction. The pA2 values for the 5-HT3 receptor indicated that FK1052 (8.36) was 40 times and three times more potent than ondansetron (6.79) and granisetron (7.86), respectively. FK1052, unlike ondansetron and granisetron, inhibited the 5-HT4-mediated component of concentration-response curve to 5-HT. Furthermore, FK1052 suppressed 5-methoxytryptamine, a 5-HT4 agonist-induced contraction in a concentration-dependent but insurmountable manner.(ABSTRACT TRUNCATED AT 250 WORDS)

CT Check Tags: In Vitro; Male
5-Methoxytryptamine: PD, pharmacology
Acetylcholine: PD, pharmacology
Animals
Bradycardia: CI, chemically induced
Electric Stimulation
Guinea Pigs
Histamine: PD, pharmacology
Ileum: DE, drug effects
Ileum: PH, physiology
Imidazoles: CH, chemistry
*Imidazoles: PD, pharmacology
Indoles: CH, chemistry
*Indoles: PD, pharmacology
Molecular Structure
Muscle Contraction: DE, drug effects
Rats
Rats, Sprague-Dawley
Receptors, Dopamine D2: ME, metabolism
Serotonin: AA, analogs & derivatives
Serotonin: PD, pharmacology
Serotonin Agonists: PD, pharmacology

*Serotonin Antagonists

L74 ANSWER 17 OF 36 MEDLINE on STN
ACCESSION NUMBER: 89051182 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2461232
TITLE: [Prevention of arrhythmia in acute ischemia in conscious animals using a serotonin analog].
Preduprezhdenie aritmii pri ostroi ishemii u bodrstvuiushchikh zhivotnykh s pomoshch'iu analoga serotonina.
AUTHOR: Shabunina E V; Petrunin I A; Vinograd L Kh; Manukhina E B; Meerson F Z
SOURCE: Biulleten' eksperimental'noi biologii i meditsiny, (1988 Oct) 106 (10) 410-2.
Journal code: 0370627. ISSN: 0365-9615.
PUB. COUNTRY: USSR
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Russian
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198812
ENTRY DATE: Entered STN: 19900308
Last Updated on STN: 19960129
Entered Medline: 19881230

AB The state of the serotonergic system was studied in adaptation of rats to short-term non-damaging stress actions along with the possibility of protecting the heart of conscious animals against arrhythmias in acute ischemia with the serotonin analogue 4-nitro-5-methoxytryptamine. It was shown that the adaptation resulted in a significant increase in rat midbrain serotonin by 70%. Preliminary administration of the serotonin analogue 3 fold reduced the total duration of arrhythmias and approximately 5 fold--the heart fibrillation rate and the death rate of animals in acute ischemia. The data obtained are in agreement with the idea on the role of stress-limiting systems in prevention of stress-induced and ischemic damages of the organism. They show that protective effects of metabolites of these systems can be successfully reproduced with their synthetic analogues or activators.

CT Check Tags: Male
***5-Methoxytryptamine: AA, analogs & derivatives**
5-Methoxytryptamine: TU, therapeutic use
Animals
*Anti-Arrhythmia Agents: TU, therapeutic use
***Arrhythmia: PC, prevention & control**
Cardiac Complexes, Premature: PC, prevention & control
English Abstract
Heart Ventricles
Mesencephalon: AN, analysis
***Myocardial Infarction: CO, complications**
Myocardial Infarction: ME, metabolism
Rats
Rats, Inbred Strains
*Serotonin: AA, analogs & derivatives
Serotonin: AN, analysis
Stress: ME, metabolism
Tachycardia: PC, prevention & control
Ventricular Fibrillation: PC, prevention & control

L74 ANSWER 18 OF 36 MEDLINE on STN
ACCESSION NUMBER: 84043205 MEDLINE
DOCUMENT NUMBER: PubMed ID: 6415707
TITLE: [Determination of arteriovenous differences of methylated

indoleamines in brain stem lesions].
Bestimmung von AV-Differenzen methylierter Indolamine bei Hirnstammlasionen.
AUTHOR: Zschenderlein R; Uebelhack R; Franke L
SOURCE: Psychiatrie, Neurologie und medizinische Psychologie. Beihefte, (1983) 29 36-9.
Journal code: 0125315. ISSN: 0555-5469.
PUB. COUNTRY: GERMANY, EAST: German Democratic Republic
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: German
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198312
ENTRY DATE: Entered STN: 19900319
Last Updated on STN: 20000303
Entered Medline: 19831220
CT Check Tags: Female; Male
5-Methoxytryptamine: BL, blood
Adult
*Brain Diseases: BL, blood
Brain Stem: IN, injuries
*Brain Stem: PP, physiopathology
Humans
Intracranial Embolism and Thrombosis: BL, blood
Methoxydimethyltryptamines: BL, blood
Methylation
Middle Aged
N,N-Dimethyltryptamine: BL, blood
Pons: PP, physiopathology
*Tryptamines: BL, blood
Vertebrobasilar Insufficiency: BL, blood

L74 ANSWER 19 OF 36 MEDLINE on STN
ACCESSION NUMBER: 82123544 MEDLINE
DOCUMENT NUMBER: PubMed ID: 6173531
TITLE: On the effects and mechanism of action of the antihypertensive agent TR 3369 (5-methoxytryptamine beta-methylcarboxylate) in spontaneously hypertensive rats.
AUTHOR: Antonaccio M J; Kerwin L
SOURCE: Journal of cardiovascular pharmacology, (1981 Nov-Dec) 3 (6) 1306-11.
Journal code: 7902492. ISSN: 0160-2446.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198204
ENTRY DATE: Entered STN: 19900317
Last Updated on STN: 19900317
Entered Medline: 19820422
AB The effects of the serotonin (5-HT) analog TR 3369 (5-methoxytryptamine beta-methylcarboxylate) on blood pressure and heart rate of spontaneously hypertensive rats (SHR) were examined. In conscious SHR, TR 3369 caused reductions in blood pressure without importantly changing heart rate in doses ranging from 1 to 30 mg/kg p.o. TR 3369 was found to have no significant antagonistic effects on alpha-, beta-, or 5-HT receptors, nor did the drug inhibit adrenergic neuronal or ganglionic function. A slight but unimportant effect on angiotensin II pressor responses was noted. Therefore, the data are in agreement with the suggestion that TR 3369 acts through a central mechanism of action. The 5-HT antagonist cinanserin had little effect on blood pressure of SHR when administered alone, whereas it

markedly reduced the duration, but not the magnitude, of the TR 3369 antihypertensive action in SHR. It is suggested that at least a portion of the antihypertensive effect of TR 3369 involves activation of central 5-HT receptors.

CT **5-Methoxytryptamine: AA, analogs & derivatives**
***5-Methoxytryptamine: PD, pharmacology**
Animals
*Antihypertensive Agents: PD, pharmacology
Autonomic Nervous System: DE, drug effects
*Blood Pressure: DE, drug effects
Brain: DE, drug effects
Hypertension: DT, drug therapy
***Hypertension: PP, physiopathology**
Rats
Rats, Inbred Strains
Receptors, Serotonin: DE, drug effects
*Tryptamines: PD, pharmacology

L74 ANSWER 20 OF 36 MEDLINE on STN
ACCESSION NUMBER: 78253229 MEDLINE
DOCUMENT NUMBER: PubMed ID: 278417
TITLE: [Protective effect of sodium hydroxybutyrate and mexamine on the body and cerebral cortex neurons during hypoxia]. Zashchitnoe deistvie oksibutirata natriia, meksamina na organizm i neirony kory golovnogo mozga v usloviiakh gipoksii.
AUTHOR: Khokhlova V A; Bykov N P; Kazakova P B; Strelkov R B
SOURCE: Zhurnal nevropatologii i psikhiatrii imeni S.S. Korsakova (Moscow, Russia : 1952), (1978) 78 (7) 997-1003. Journal code: 8710066. ISSN: 0044-4588.
PUB. COUNTRY: USSR
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Russian
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197810
ENTRY DATE: Entered STN: 19900314
Last Updated on STN: 20000303
Entered Medline: 19781027

AB Experiments on white non-pure male mice have established that NA oxybutirate in doses 100 mg/kg and mexamine in doses 2.5 mg/kg possess antihypoxic properties in conditions of severe hypoxia corresponding to a height of 10 000 m. In a combined introduction of Na oxybutirate and mexamine in the above-mentioned doses there is an increase of their antihypoxic action. It was demonstrated that Na oxybutirate, mexamine and their combination exposes a distinct protective effect on the cortical neurons on rats in conditions of hypoxia. It is assumed that the protective action of the studied antihypoxants on the cortical neurons is realized with the aid of the same mechanisms as in a physiological adaptation to hypoxia.

CT Check Tags: Male
5-Methoxytryptamine: AD, administration & dosage
***5-Methoxytryptamine: TU, therapeutic use**
Animals
Cerebral Cortex: ME, metabolism
Cerebral Cortex: PA, pathology
Drug Synergism
English Abstract
Guinea Pigs
*Hydroxybutyrates: TU, therapeutic use
Hypoxia, Brain: ME, metabolism

Hypoxia, Brain: PA, pathology
***Hypoxia, Brain: PC, prevention & control**
Rats
Sodium Oxybate: AD, administration & dosage
*Sodium Oxybate: TU, therapeutic use
*Tryptamines: TU, therapeutic use

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ACCESSION NUMBER: 2002124466 EMBASE
TITLE: The atypical 5-HT(2) receptor mediating tachycardia in pithed rats: Pharmacological correlation with the 5-HT(2A) receptor subtype.
AUTHOR: Centurion D.; Ortiz M.I.; Saxena P.R.; Villalon C.M.
CORPORATE SOURCE: C.M. Villalon, Departamento de Farmacobiologia, CINVESTAV-IPN, Czda. de los T. 235, Col. G. Coapa, C.P. 14330, Mexico D.F., Mexico. carlos_villalon@infosel.net.mx
SOURCE: British Journal of Pharmacology, (2002) Vol. 135, No. 6, pp. 1531-1539.
Refs: 26
ISSN: 0007-1188 CODEN: BJPCBM
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20020502
Last Updated on STN: 20020502

AB 1. In pithed rats, 5-HT mediates tachycardia both directly (by 5-HT(2) receptors) and indirectly (by a tyramine-like effect). The receptor mediating tachycardia directly has been classified as an 'atypical' 5-HT(2) receptor since it was 'weakly' blocked by ketanserin. Moreover, 1-(2,5-dimethoxy-4-iodophenyl)-2-aminopropane (DOI), a 5-HT(2) agonist, failed to mimic 5-HT-induced tachycardia. Since 5-HT(2) receptors consist of 5-HT(2A), 5-HT(2B) and 5-HT(2C) subtypes, this study investigated if these subtypes mediate the above response. 2. In pithed rats, intraperitoneally (i.p.) pre-treated with reserpine (5 mg kg(-1)), intravenous (i.v.) administration of 5-HT, 5-methoxytryptamine (5-MeO-T), 1-(3-chlorophenyl) piperazine (mCPP) and 5-carboxamidotryptamine (5-CT) (10, 30, 100 and 300 μg kg(-1) each), produced dose-dependent tachycardic responses. Interestingly, DOI (10-1000 μg kg(-1), i.v.) induced only slight, dose-unrelated, tachycardic responses, whilst the 5-HT(2C) agonist, Ro 60-0175 (10-1000 μg kg(-1), i.v.), produced a slight tachycardia only at 300 and 1000 μg kg(-1). In contrast, sumatriptan and 1-(m-trifluoromethylphenyl)- piperazine (TFMPP) were inactive. The rank order of potency was: 5-HT ≥ 5-MeO-T > mCPP ≥ 5-CT ≥ DOI > Ro 60-0175. 3. The tachycardic responses to 5-HT, which remained unaffected after i.v. saline (0.3 and 1 ml kg(-1)) or propranolol (3 mg kg(-1)), were selectively blocked by the 5-HT(2A) antagonists ketanserin (30 and 100 μg kg(-1)) or spiperone (10 and 30 μg kg(-1)) as well as by the non-selective 5-HT(2) antagonists, ritanserin (10 and 30 μg kg(-1)) or mesulergine (100 μg kg(-1)). Remarkably, these responses were unaffected by the antagonists rauwolscine (5-HT(2B)), SB204741 (5-HT(2B/2C)) or Ro 04-6790 (5-ht(6)) (300 and 1000 μg kg(-1) each). 4. These results suggest that the 'atypical' 5-HT(2) receptors mediating tachycardia in reserpinized pithed rats are pharmacologically similar to the 5-HT(2A) receptor subtype.

CT Medical Descriptors:
*drug mechanism

***tachycardia**
hemodynamics
drug effect
heart rate
blood pressure
concentration response
nonhuman
male
rat
animal experiment
article
priority journal
Drug Descriptors:
*serotonin 2 receptor: EC, endogenous compound
*serotonin 2A receptor: EC, endogenous compound
*4 amino n [2,6 bis(methylamino) 4 pyrimidinyl]benzenesulfonamide: PD, pharmacology
*2 (6 chloro 5 fluoro 1 indolyl) 1 methylethylamine: PD, pharmacology
*2 (6 chloro 5 fluoro 1 indolyl) 1 methylethylamine: IV, intravenous drug administration
*1 (1 methyl 5 indolyl) 3 (3 methyl 5 isothiazolyl)urea
serotonin 2B receptor: EC, endogenous compound
serotonin 2C receptor: EC, endogenous compound
reserpine: PD, pharmacology
reserpine: IP, intraperitoneal drug administration
serotonin: PD, pharmacology
serotonin: IV, intravenous drug administration
5 methoxytryptamine: PD, pharmacology
5 methoxytryptamine: IV, intravenous drug administration
(3 chlorophenyl)piperazine: PD, pharmacology
(3 chlorophenyl)piperazine: IV, intravenous drug administration
5 carbamoyltryptamine: PD, pharmacology
5 carbamoyltryptamine: IV, intravenous drug administration
4 iodo 2,5 dimethoxyamphetamine: PD, pharmacology
4 iodo 2,5 dimethoxyamphetamine: IV, intravenous drug administration
serotonin 2 agonist: PD, pharmacology
serotonin 2 agonist: IV, intravenous drug administration
ketanserin: PD, pharmacology
spiperone: PD, pharmacology
ritanserin: PD, pharmacology
mesulergine: PD, pharmacology
rauwolscine: PD, pharmacology
sumatriptan: PD, pharmacology
unclassified drug

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ACCESSION NUMBER: 2000106525 EMBASE
TITLE: Hypotensive activity of the pineal indoleamine hormones melatonin, 5- methoxytryptophol and 5-methoxytryptamine.
AUTHOR: Wang H.; Tzi Bun Ng
CORPORATE SOURCE: T.B. Ng, Department of Biochemistry, Faculty of Medicine, Chinese University of Hong Kong, Shatin, N. T., Hong Kong. biochemistry@cuhk.edu.hk
SOURCE: Pharmacology and Toxicology, (2000) Vol. 86, No. 3, pp. 125-128.
Refs: 36
ISSN: 0901-9928 CODEN: PHTOEH
COUNTRY: Denmark
DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 002 Physiology
003 Endocrinology
018 Cardiovascular Diseases and Cardiovascular Surgery
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20000406
Last Updated on STN: 20000406

AB Injection of the pineal indoles melatonin, 5-methoxytryptophol and 5-methoxytryptamine via the external jugular vein elicited a dose-dependent depression in mean arterial pressure. Melatonin and 5-methoxytryptophol were approximately equipotent and a dose of 150 μmol/kg brought about a reduction of about 40 mmHg in mean arterial pressure. Methoxytryptamine exerted a much more potent hypotensive action. An abrupt decrement in mean arterial pressure by 30 mmHg occurred when the dose was only 2 nmol/kg. Subsequent increases in the dose further lowered the mean arterial pressure, but more gently. The other pineal indoles tested including 5-methoxyindoleacetic acid and 5- hydroxyindoleacetic acid, as well as 6-methoxy-2-benzoxazolinone, did not affect the mean arterial pressure when tested up to 80 μmol/kg. Methylene blue, a guanylate cyclase inhibitor, was not able to antagonize the hypotensive activity of melatonin, suggesting that the mechanism of action of melatonin does not involve guanylate cyclase. Lidocaine, which blocks sodium channels in perivascular nerves, antagonized the hypotensive action of melatonin.

CT Medical Descriptors:
*pineal body
***hypotension: ET, etiology**
mean arterial pressure
blood pressure regulation
cardiovascular effect
dose response
sodium channel
nonhuman
male
rat
animal model
article
priority journal
Drug Descriptors:
*pineal body hormone: CM, drug comparison
*pineal body hormone: DO, drug dose
*pineal body hormone: IT, drug interaction
*indoleamine: CM, drug comparison
*indoleamine: DO, drug dose
*indoleamine: IT, drug interaction
*melatonin: CM, drug comparison
*melatonin: DO, drug dose
*melatonin: IT, drug interaction
*5 methoxytryptophol: CM, drug comparison
*5 methoxytryptophol: DO, drug dose
***5 methoxytryptamine: CM, drug comparison**
***5 methoxytryptamine: DO, drug dose**
5 methoxyindoleacetic acid: CM, drug comparison
5 methoxyindoleacetic acid: DO, drug dose
5 hydroxyindoleacetic acid: CM, drug comparison
5 hydroxyindoleacetic acid: DO, drug dose
lidocaine: IT, drug interaction
lidocaine: PD, pharmacology
sodium channel blocking agent: IT, drug interaction

sodium channel blocking agent: PD, pharmacology
methylene blue

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ACCESSION NUMBER: 97195973 EMBASE
DOCUMENT NUMBER: 1997195973
TITLE: Nature of 5-HT1-like receptors mediating depressor responses in vagosympathectomized rats; close resemblance to the cloned 5-ht7 receptor.
AUTHOR: De Vries P.; Villalon C.M.; Heiligers J.P.C.; Saxena P.R.
CORPORATE SOURCE: P.R. Saxena, Department of Pharmacology, Faculty of Medicine/Health Sciences, Erasmus University, P.O. Box 1738, 3000 DR Rotterdam, Netherlands
SOURCE: Naunyn-Schmiedeberg's Archives of Pharmacology, (1997) Vol. 356, No. 1, pp. 90-99.
Refs: 45
ISSN: 0028-1298 CODEN: NSAPCC
COUNTRY: Germany
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 008 Neurology and Neurosurgery
018 Cardiovascular Diseases and Cardiovascular Surgery
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 970723
Last Updated on STN: 970723
AB It has been suggested that the late hypotensive response to serotonin (5-hydroxytryptamine; 5-HT) in vagosympathectomized rats is mediated by '5-HT1-like' receptors since this effect is mimicked by 5-carboxamidotryptamine (5-CT), is not modified by cyproheptadine, ketanserin or MDL 72222, but it is blocked by met hysergide. The present study was set out to reanalyze this suggestion in terms of the classification schemes proposed in 1994 and 1996 by the NC-IUPHAR subcommittee on the classification and nomenclature of 5-HT receptors. I.v. bolus injections of 5-CT (0.01-0.3 μg · kg-1), 5-HT (1-30 μg · kg-1) and 5-methoxytryptamine (5-MeO-T; 1-30 μg · kg-1) produced dose-dependent hypotensive responses with a rank order of agonist potency: 5-CT >> 5-HT ≤ 5-methoxytryptamine with sumatriptan (30-1000 μg · kg-1) inactive. The depressor responses to 5-HT and 5-CT were not attenuated by i.v. GR127935 (300-3000 μg · kg-1) or equivalent volumes of saline. In contrast, lisuride, methiothepin, mesulergine, metergoline and clozapine dose-dependently antagonized the responses to 5-HT and 5-CT; the rank order of apparent pA2 values against 5-HT and 5-CT, respectively, was: lisuride (7.7; 7.8) > methiothepin (6.8; 7.0) ≤ mesulergine (6.4; 6.6) > clozapine (5.7; 5.8); metergoline displayed variable potencies (5.6; 6.4). Except for lisuride, which also affected isoprenaline-induced hypotension, the antagonism by the other drugs was selective. Based upon the above rank order of agonist potency, the blockade by a series of drugs showing high affinity for the cloned 5-ht7 receptor and the lack of blockade by GR127935, our results indicate that the 5-HT receptor mediating hypotension in vagosympathectomized rats is operationally similar to other putative 5-ht7 receptors mediating vascular and non-vascular responses (e.g. relaxation of the rabbit femoral vein, canine coronary and external carotid arteries and guinea-pig ileum as well as feline tachycardia).
CT Medical Descriptors:
*depressor response

animal experiment
article
blood pressure
controlled study
hypotension
intravenous drug administration
male
nonhuman
rat
sympathectomy
Drug Descriptors:
*5 carbamoyltryptamine: DO, drug dose
*5 carbamoyltryptamine: PD, pharmacology
***5 methoxytryptamine: DO, drug dose**
***5 methoxytryptamine: PD, pharmacology**
*n [4 methoxy 3 (4 methyl 1 piperazinyl)phenyl] 2' methyl 4' (5 methyl 1,2,4 oxadiazol 3 yl)[1,1' biphenyl] 4 carboxamide: PD, pharmacology
*serotonin 1 receptor: EC, endogenous compound
*serotonin receptor: EC, endogenous compound
*sumatriptan: PD, pharmacology
*sumatriptan: DO, drug dose
clozapine: PD, pharmacology
isoprenaline: PD, pharmacology
ketanserin: PD, pharmacology
lisuride: PD, pharmacology
mesulergine: PD, pharmacology
metergoline: PD, pharmacology
metitepine: PD, pharmacology
ritanserin: PD, pharmacology
serotonin: PD, pharmacology

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ACCESSION NUMBER: 94170406 EMBASE
DOCUMENT NUMBER: 1994170406
TITLE: (R) and (S) RS 56532: Mixed 5-HT3 and 5-HT4 receptor ligands with opposing enantiomeric selectivity.
AUTHOR: Eglen R.M.; Bonhaus D.W.; Clark R.D.; Johnson L.G.; Lee C.-H.; Leung E.; Smith W.L.; Wong E.H.F.; Whiting R.L.
CORPORATE SOURCE: Institute of Pharmacology, Syntex Discovery Research, Palo Alto, CA 94304, United States
SOURCE: Neuropharmacology, (1994) Vol. 33, No. 3-4, pp. 515-526. ISSN: 0028-3908 CODEN: NEPHBW
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 023 Nuclear Medicine
029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 940706
Last Updated on STN: 940706

AB The pharmacological properties of the (R) and (S) enantiomers of RS 56532 have been studied in vitro and in vivo. In radioligand binding studies at 5-HT4 receptors in guinea-pig striatum, (S) RS 56532 exhibited a higher affinity than (R) RS 56532 (-log K(i) = 7.6 and 6.5, respectively). (S) RS 56532 acted as a potent agonist at 5-HT4 receptors mediating relaxation of rat oesophageal muscularis mucosae (-log EC50 = 7.9) while (R) RS 56532 acted as a weaker agonist at this receptor (-log EC50 < 6.0). These data

suggest that at 5-HT4 receptors, the enantiomeric selectivity of RS 56532 was (S) > (R). In binding studies at 5-HT3 receptors in rat cortex, (R) RS 56532, conversely, exhibited a higher affinity than (R) RS 56532 (-log K; = 9.1 and 8.0, respectively). At 5-HT3 receptors in guinea-pig isolated ileum, (R) RS 56532 exhibited an affinity (-log K(B)) of 7.9, whereas (S) RS 56532 (1 μM-1 μM) was inactive. No agonism was observed at ileal 5-HT3 receptors with either enantiomers. These data suggest that at 5-HT3 receptors in rat and guinea-pig, both enantiomers acted as antagonists, with (R) > (S) RS 56532. At the non-5-HT3, high affinity '(R) zacopride' site, (R) RS 56532 exhibited a higher affinity than (S) RS 56532 (-log K; = 6.1 and 4.9). This site was insensitive to potent 5-HT3 antagonists such as (R) YM 060 or ondansetron. However, it was recognized with relatively high affinity (-log K(i) = 7.5) by the (R), but not (S) enantiomer, of RS 42358 (-log K(i) = 4.7). Since (S) RS 42358 is a high affinity 5-HT3 receptor antagonist, these data further highlight the dissimilarity between the 5-HT3 receptor and the '(R) zacopride' site. The '(R) zacopride' site also appeared to be pharmacologically distinct from the 5-HT4 receptor, since 5-HT4 ligands such as renzapride, SDZ 205,557 or RS 23597-190 exhibited low affinities. The enantiomeric selectivity of (R) and (S) RS 56532 in vivo was consistent with findings in vitro. At 5-HT4 receptors mediating tachycardia in the pig, 5-HT induced a dose-dependent tachycardia (ED50 = 3 μg kg-1, i.v.; maximum response = 90-100 beats min-1). (S) RS 56532 increased heart rate by 88 min-1 with a potency of (ED50) of 3 μg kg-1, i.v. In contrast, a tachycardia effect (23 beats min-1) of (R) RS 56532 was seen only at 1 mg kg-1, i.v. (R) RS 56532 was more potent than (S) RS 56532 (ID50 = 3 and 78 μg kg-1, i.v. respectively) at inhibiting the von Bezold Jarisch reflex, a response mediated by 5-HT3 receptor activation. Similarly, (R) RS 56532, at 0.1 mg kg-1 p.o., inhibited cisplatin induced emesis in the ferret, from 19.8 to 5.8 emetic episodes. In contrast, (S) RS 56532 was inactive at this oral dose. The emetic response to neoplastic agents such as cisplatin is also mediated by 5-HT3 activation. In summary, RS 56532 in vitro and in vivo, exhibits opposing enantiomeric selectivity at 5-HT3 and 5-HT4 receptors, i.e. 5-HT3-(R) > (S); 5-HT4-(S) > (R). The affinity of the (R) enantiomer at 5-HT3 receptors and the potency of the (S) enantiomer at 5-HT4 receptors render them useful pharmacological tools to further define the binding domains of these two S-HT receptor subtypes. Furthermore, these data show that 1,8-naphthalimides, such as (S) RS 56532, represent a novel class of potent 5-HT4 receptor agonists.

CT Medical Descriptors:
*receptor binding
*stereospecificity
***tachycardia**
*vomiting
animal experiment
animal model
animal tissue
article
brain cortex
controlled study
corpus striatum
drug antagonism
drug selectivity
enantiomer
esophagus
female
ferret
guinea pig
ileum
intravenous drug administration

male
nonhuman
oral drug administration
priority journal
rat
receptor affinity
reflex
swine
Drug Descriptors:
*serotonin 3 receptor
*serotonin 4 receptor
*serotonin agonist: PD, pharmacology
*serotonin antagonist
2 methylserotonin: PD, pharmacology
2,3 dihydro 3 isopropyl 2 oxo 1 benzimidazolecarboxylic acid 3alpha tropanylamide: PD, pharmacology
3 ethyl 2,3 dihydro 2 oxo 1 benzimidazolecarboxylic acid 3alpha tropanylamide: PD, pharmacology
4 amino 5 chloro 2 methoxybenzoic acid 2 (diethylamino)ethyl ester: PD, pharmacology
4 amino 5 chloro 2 methoxybenzoic acid 3 piperidinopropyl ester: PD, pharmacology
ramosetron: PD, pharmacology
5 methoxytryptamine: PD, pharmacology
8 amino 7 chloro 1,4 benzodioxan 5 carboxylic acid 1 butyl 4 piperidinylmethyl ester: PD, pharmacology
cisplatin: TO, drug toxicity
cisplatin: IT, drug interaction
cocaine: PD, pharmacology
corticosterone: PD, pharmacology
1 methyl 3 indolecarboxylic acid [1 [2 (methylsulfonylamino)ethyl] 4 piperidinylmethyl] ester: PD, pharmacology
granisetron: PD, pharmacology
methysergide: PD, pharmacology
mianserin: PD, pharmacology
ondansetron: PD, pharmacology
prazosin: PD, pharmacology
quipazine: PD, pharmacology
radioligand
renzapride: PD, pharmacology
rs 42358: PD, pharmacology
rs 56532: PD, pharmacology
rs 56532: IT, drug interaction
4 amino 5 chloro n [(hexahydro 1h pyrrolizin 1 yl)methyl] 2 methoxybenzamide: PD, pharmacology
serotonin: DO, drug dose
serotonin: PD, pharmacology
unindexed drug
zacopride: PD, pharmacology
unclassified drug

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ACCESSION NUMBER: 94011785 EMBASE
DOCUMENT NUMBER: 1994011785
TITLE: Characterization of the 5-HT4 receptor mediating tachycardia in piglet isolated right atrium.
AUTHOR: Medhurst A.D.; Kaumann A.J.
CORPORATE SOURCE: Clinical Pharmacology Unit, University of Cambridge, Addenbrooke's Hospital, Hills Road,Cambridge CB2 2QQ,

United Kingdom
SOURCE: British Journal of Pharmacology, (1993) Vol. 110, No. 3, pp. 1023-1030.
ISSN: 0007-1188 CODEN: BJPCBM
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 002 Physiology
018 Cardiovascular Diseases and Cardiovascular Surgery
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 940130
Last Updated on STN: 940130

AB 1. In order to explore whether 5-HT4 receptor subtypes exist, we have characterized further the 5-HT4 receptor that mediates tachycardia in the piglet isolated right atrium. All experiments were carried out in the presence of propranolol (400 nM) and cocaine (6 μM). We used tryptamine derivatives, substituted benzamides and benzimidazolone derivatives as pharmacological tools. 2. Tachycardia responses to 5-hydroxytryptamine (5-HT) were mimicked by other tryptamine derivatives with the following order of potency: 5-HT > 5-methoxytryptamine > α-methyl-5-HT = bufotenine > 5-carboxamidotryptamine = tryptamine (after treatment with pargyline) > 5-methoxy-N,N-dimethyltryptamine > 2-methyl-5-HT. 3. The substituted benzamides were all partial agonists relative to 5-HT except (-)-zacopride which was a full agonist. The stimulant potency order was renzapride > cisapride = (-)-zacopride > metoclopramide > (+)-zacopride. 4. The benzimiedazolone derivatives had contrasting effects. BIMU 8 (endo-N-(8-methyl-8-azabicyclo[3.2.1]oct-3-yl)-2,3-dihydro-(1-methyl(ethyl-2-oxo-1H-benzimidazole-1-carboxamide hydrochloride) was a full agonist relative to 5-HT whilst BIMU 1 (endo-N-(8-methyl-8-azabicyclo[3.2.1]oct-3-yl)-2,3-dihydro-3-ethyl-2-oxo-1H-benzimidazole-1-carboxamide hydrochloride) was a partial agonist with low intrinsic activity compared to 5-HT but had similar potency. We estimated a pK(B) of 7.9 for BIMU 1 antagonism of 5-HT-induced tachycardia. DAU 6215 (N-endo-8-methyl-8-azabicyclo[3.2.1]-oct-3-yl)-2,3-dihydro-2-oxo-1H-b enzimidazole-1-carboxamide, hydrochloride) had no chronotropic activity and was found to be a simple competitive antagonist with a pK(B) of 7.1 5. SB 203186 (1-piperidinyl)ethyl 1H-indole 3-carboxylate) was a potent antagonist with a pK(B) of 8.3. The affinity of SB 203186 was approximately 20 times higher than that of tropisetron (ICS 205-930; pK(B) = 6.9) and DAU 6215 (pK(B) = 7.0). GR113808 (([1-[2-[methylsulphonyl amino]ethyl]-4-piperidinyl] methyl 1-methyl-1H-indole-3-carboxylate) and SDZ 205-557 ((2-diethylaminoethyl)2-methoxy-4-amino-5-chloro-benzoate) also antagonized 5-HT-induced tachycardia but not by simple competitive blockade. 6. The sinoatrial 5-HT4 receptor in the piglet has a pharmacological profile that correlates well with 5-HT4 receptors characterized in rat oesophagus, guinea-pig ileum and colon, mouse embryonic colliculi neurones and human atrium.

CT Medical Descriptors:
*heart right atrium
***tachycardia**
agonist
animal tissue
article
concentration response
controlled study
drug antagonism
drug potency
female

male
newborn
nonhuman
priority journal
sinus node
swine
Drug Descriptors:
*serotonin 4 receptor
partial agonist
receptor subtype
*serotonin: IT, drug interaction
*serotonin: PD, pharmacology
*serotonin: CM, drug comparison
*serotonin agonist: CM, drug comparison
*serotonin agonist: PD, pharmacology
*serotonin agonist: IT, drug interaction
*serotonin antagonist: IT, drug interaction
*serotonin antagonist: PD, pharmacology
2 methylserotonin: CM, drug comparison
2 methylserotonin: PD, pharmacology
itasetron: PD, pharmacology
itasetron: CM, drug comparison
itasetron: IT, drug interaction
2,3 dihydro 3 isopropyl 2 oxo 1 benzimidazolecarboxylic acid 3alpha tropanylamide: CM, drug comparison
2,3 dihydro 3 isopropyl 2 oxo 1 benzimidazolecarboxylic acid 3alpha tropanylamide: PD, pharmacology
3 ethyl 2,3 dihydro 2 oxo 1 benzimidazolecarboxylic acid 3alpha tropanylamide: IT, drug interaction
3 ethyl 2,3 dihydro 2 oxo 1 benzimidazolecarboxylic acid 3alpha tropanylamide: PD, pharmacology
3 ethyl 2,3 dihydro 2 oxo 1 benzimidazolecarboxylic acid 3alpha tropanylamide: CM, drug comparison
4 amino 5 chloro 2 methoxybenzoic acid 2 (diethylamino)ethyl ester: PD, pharmacology
4 amino 5 chloro 2 methoxybenzoic acid 2 (diethylamino)ethyl ester: IT, drug interaction
4 amino 5 chloro 2 methoxybenzoic acid 2 (diethylamino)ethyl ester: CM, drug comparison
5 carbamoyltryptamine: CM, drug comparison
5 carbamoyltryptamine: PD, pharmacology
5 methoxy n,n dimethyltryptamine: PD, pharmacology
5 methoxy n,n dimethyltryptamine: CM, drug comparison
5 methoxytryptamine: CM, drug comparison
5 methoxytryptamine: PD, pharmacology
alpha methylserotonin: CM, drug comparison
alpha methylserotonin: PD, pharmacology
benzamide derivative: PD, pharmacology
benzimidazolone derivative: PD, pharmacology
bufotenine: CM, drug comparison
bufotenine: PD, pharmacology
cisapride: PD, pharmacology
cisapride: CM, drug comparison
cocaine: PD, pharmacology
1 methyl 3 indolecarboxylic acid [1 [2 (methylsulfonylamino)ethyl] 4 piperidinylmethyl] ester: CM, drug comparison
1 methyl 3 indolecarboxylic acid [1 [2 (methylsulfonylamino)ethyl] 4 piperidinylmethyl] ester: IT, drug interaction
1 methyl 3 indolecarboxylic acid [1 [2 (methylsulfonylamino)ethyl] 4 piperidinylmethyl] ester: PD, pharmacology

isoprenaline: PD, pharmacology
metoclopramide: PD, pharmacology
metoclopramide: CM, drug comparison
pargyline: PD, pharmacology
propranolol: PD, pharmacology
renzapride: CM, drug comparison
renzapride: PD, pharmacology
3 indolecarboxylic acid 2 (1 piperidinyl)ethyl ester: IT, drug interaction
3 indolecarboxylic acid 2 (1 piperidinyl)ethyl ester: CM, drug comparison
3 indolecarboxylic acid 2 (1 piperidinyl)ethyl ester: PD, pharmacology
tropisetron: CM, drug comparison
tropisetron: PD, pharmacology
tropisetron: IT, drug interaction
tryptamine: CM, drug comparison
tryptamine: PD, pharmacology
tryptamine derivative: CM, drug comparison
tryptamine derivative: PD, pharmacology
zacopride: PD, pharmacology
zacopride: CM, drug comparison
unclassified drug

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ACCESSION NUMBER: 93032542 EMBASE
DOCUMENT NUMBER: 1993032542
TITLE: The action of SDZ 205,557 at 5-hydroxytryptamine (5-HT3 and 5-HT4) receptors.
AUTHOR: Eglen R.M.; Alvarez R.; Johnson L.G.; Leung E.; Wong E.H.F.
CORPORATE SOURCE: Institute of Pharmacology, Syntex Discovery Research, 3401 Hillview Ave.,Palo Alto, CA 94304, United States
SOURCE: British Journal of Pharmacology, (1993) Vol. 108, No. 2, pp. 376-382.
ISSN: 0007-1188 CODEN: BJPCBM
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 002 Physiology
008 Neurology and Neurosurgery
018 Cardiovascular Diseases and Cardiovascular Surgery
048 Gastroenterology
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 930221
Last Updated on STN: 930221

AB 1. The interaction of the novel antagonist, SDZ 205,557 (2-methoxy-4-amino-5-chloro benzoic acid 2-(diethylamino) ethyl ester), at 5-HT3 and 5-HT4 receptors has been assessed in vitro and in vivo. 2. In guinea-pig hipppocampus and in the presence of 0.4 μM 5-carboxamidotryptamine, 5-HT4-mediated stimulation of adenylyl cyclase was competitively antagonized by SDZ 205,557, with a pA2 value of 7.5, and a Schild slope of 0.81. In rat carbachol-contracted oesophagus, 5-HT4-receptor mediated relaxations were surmountably antagonized by SDZ 205,557 with a similar pA2 value (7.3). This value was agonist-independent with the exception of (R)-zacopride, against which a significantly lower value (6.4) was observed. 3. In functional studies of 5-HT3 receptors, SDZ 205,557 exhibited an affinity of 6.2 in guinea-pig ileum compared with 6.9 at binding sites labelled by [3H]-quipazine in NG108-15 cells. In the anaesthetized, vagotomized micropig, SDZ 205,557 produced only a transient blockade of 5-HT4-mediated tachycardia. This

contrasted with tropisetron, which was active for over 60 min after administration. The half-lives for the inhibitory responses of SDZ 205,557 and tropisetron were 23 and 116 min, respectively. 4. In conclusion, SDZ 205,557 has similar affinity for 5-HT3 and 5-HT4 receptors. The apparent selectivity observed in guinea-pig is due to the atypical nature of the 5-HT3 receptor in this species. The short duration of action of this novel antagonist may complicate its use in vivo. SDZ 205,557 should, therefore, be used with appropriate caution in studies defining the 5-HY4 receptor.

CT Medical Descriptors:
***tachycardia**
animal cell
animal experiment
animal tissue
article
controlled study
drug receptor binding
esophagus
female
guinea pig
hippocampus
ileum
intravenous drug administration
male
mouse
neuroblastoma cell
nonhuman
priority journal
rat
smooth muscle relaxation
swine
Drug Descriptors:
*serotonin 3 receptor
*serotonin 4 receptor
*2,3 dihydro 3 isopropyl 2 oxo 1 benzimidazolecarboxylic acid 3alpha tropanylamide: PD, pharmacology
*2,3 dihydro 3 isopropyl 2 oxo 1 benzimidazolecarboxylic acid 3alpha tropanylamide: CM, drug comparison
*3 ethyl 2,3 dihydro 2 oxo 1 benzimidazolecarboxylic acid 3alpha tropanylamide: CM, drug comparison
*3 ethyl 2,3 dihydro 2 oxo 1 benzimidazolecarboxylic acid 3alpha tropanylamide: PD, pharmacology
*4 amino 5 chloro 2 methoxybenzoic acid 2 (diethylamino)ethyl ester: PD, pharmacology
*4 amino 5 chloro 2 methoxybenzoic acid 2 (diethylamino)ethyl ester: PK, pharmacokinetics
*4 amino 5 chloro 2 methoxybenzoic acid 2 (diethylamino)ethyl ester: CM, drug comparison
*4 amino 5 chloro 2 methoxybenzoic acid 2 (diethylamino)ethyl ester: CB, drug combination
*4 amino 5 chloro 2 methoxybenzoic acid 2 (diethylamino)ethyl ester: IT, drug interaction
*adenylate cyclase: EC, endogenous compound
*tropisetron: IT, drug interaction
*tropisetron: CM, drug comparison
*tropisetron: CB, drug combination
*tropisetron: PK, pharmacokinetics
*tropisetron: PD, pharmacology
*zacopride: CM, drug comparison
*zacopride: DO, drug dose

*zacopride: PD, pharmacology
5 carbamoyltryptamine: PD, pharmacology
5 carbamoyltryptamine: DO, drug dose
5 carbamoyltryptamine: CM, drug comparison
5 methoxytryptamine: CM, drug comparison
5 methoxytryptamine: PD, pharmacology
carbachol
metoclopramide: CM, drug comparison
metoclopramide: PD, pharmacology
ondansetron: CM, drug comparison
ondansetron: PD, pharmacology
renzapride: CM, drug comparison
renzapride: PD, pharmacology
renzapride: DO, drug dose
4 amino 5 chloro n [(hexahydro 1h pyrrolizin 1 yl)methyl] 2
methoxybenzamide: CM, drug comparison
4 amino 5 chloro n [(hexahydro 1h pyrrolizin 1 yl)methyl] 2
methoxybenzamide: PD, pharmacology
serotonin: CM, drug comparison
serotonin: IT, drug interaction
serotonin: PD, pharmacology
serotonin: DO, drug dose
spiperone: PD, pharmacology
spiperone: IT, drug interaction
spiperone: CM, drug comparison
spiperone: CB, drug combination
bemesetron: PD, pharmacology
bemesetron: CM, drug comparison

L74 ANSWER 27 OF 36 EMBASE

ACCESSION NUMBER: 91139605 EMBASE
DOCUMENT NUMBER: 1991139605
TITLE: Further characterization, by use of tryptamine and benzamide derivatives, of the putative 5-HT4 receptor mediating tachycardia in the pig.
AUTHOR: Villalon C.M.; Den Boer M.O.; Heiligers J.P.C.; Saxena P.R.
CORPORATE SOURCE: Department of Pharmacology, Faculty Med./Health Sciences, Erasmus University Rotterdam, Post box 1738,3000 DR Rotterdam, Netherlands
SOURCE: British Journal of Pharmacology, (1991) Vol. 102, No. 1, pp. 107-112.
ISSN: 0007-1188 CODEN: BJPCBM
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 911216
Last Updated on STN: 911216

AB 1 It has recently been shown that the tachycardic response to 5-hydroxytryptamine (5-HT) in the anaesthetized pig, being mimicked by 5-methoxytryptamine and renzapride and blocked by high doses of ICS 205-930, is mediated by the putative 5-HT4 receptor. In the present investigation we have further characterized this receptor. 2 Intravenous bolus injections of the tryptamine derivatives, 5-HT (3, 10 and 30 μg kg-1), 5-methoxytryptamine (3, 10 and 30 μg kg-1) and α-methyl-5-hydroxytryptamine (α-methyl-5-HT; 3, 10, 30 and 100 μg kg-1), resulted in dose-dependent increases in heart rate of,

respectively, 25 ± 2, 48 ± 3 and 68 ± 3 beats min-1 (5-HT; n = 35); 15 ± 1, 32 ± 2 and 57 ± 3 beats min-1 (5-methoxytryptamine; n = 30); 6 ± 4, 18 ± 6, 34 ± 6 and 64 ± 11 beats min-1 (α-methyl-5-HT; n = 3). 3 The increases in heart rate following i.v. administration of certain substituted benzamide derivatives were generally less marked and not dose-dependent: 1 ± 5, 11 ± 3 and 10 ± 5 beats min-1 after 300, 1000 and 3000 μg kg-1 of metoclopramide, respectively, (n = 8); 21 ± 4, 19 ± 2 and 2 ± 2 beats min-1 after 100, 300 and 1000 μg kg-1 of cisapride, respectively, (n = 5); 6 ± 2, 14 ± 2, 37 ± 6, 43 ± 8 and 34 ± 10 beats min-1 after 10, 30, 100, 300 and 1000 μg kg-1 of zacopride, respectively, (n = 6); and 1 ± 1, 2 ± 1 and 5 ± 2 beats min-1 after 300, 1000 and 3000 μg kg-1 of dazopride, respectively, (n = 4). These drugs behaved as partial agonists, antagonizing the responses to 5-HT and 5-methoxytryptamine dose-dependently. 4 The 5-HT3 receptor agonist 1-phenyl-biguanide (100, 300 and 1000 μg kg-1) induced only slight increases in heart rate of 1 ± 1, 6 ± 2 and 11 ± 1 beats min-1, respectively, (n = 3). These effects were not antagonized by the selective 5-HT3 receptor antagonist granisetron (3 mg kg-1). In addition, 1-phenyl-biguanide (1000 μg kg-1) did not modify the tachycardia induced by either 5-HT- or 5-methoxytryptamine. 5 High doses (3 mg kg-1) of ICS 205-930, a 5-HT3 receptor antagonist with an indole group and devoid of effects on porcine heart rate per se, antagonized the stimulatory effects of 5-HT, 5-methoxytryptamine, α-Me-5-HT, metoclopramide, cisapride, zacopride, dazopride and 1-phenyl-biguanide. However, the 5-HT2 receptor antagonist ketanserin (0.5 mg kg-1), the 5-HT3 receptor antagonists granisetron (3 mg kg-1) and MDL 72222 (3 mg kg-1) and the dopamine D2 receptor antagonist domperidone (3 mg kg-1) had no antagonist activity. 6 The above results support our contention that 5-HT, 5-methoxytryptamine, α-Me-5-HT and the substituted benzamide derivatives increase porcine heart rate by a direct action on the cardiac pacemaker, via the activation of a putative 5-HT4 receptor. The pharmacological profile of this novel 5-HT receptor is similar (neurones from mouse brain colliculi and human heart), or, perhaps, even identical (guinea-pig cholinergic neurones) to other putative 5-HT4 receptors.

CT Medical Descriptors:
*heart rate
***tachycardia**
animal experiment
article
blood pressure
controlled study
intravenous drug administration
nonhuman
priority journal
swine
Drug Descriptors:
*serotonin 4 receptor
*benzamide derivative: PD, pharmacology
*tryptamine derivative: PD, pharmacology
tropisetron: PD, pharmacology
5 methoxytryptamine: DO, drug dose
5 methoxytryptamine: PD, pharmacology
alpha methylserotonin: PD, pharmacology
alpha methylserotonin: DO, drug dose
cisapride: PD, pharmacology
cisapride: DO, drug dose
dazopride: PD, pharmacology
dazopride: DO, drug dose
domperidone

granisetron: PD, pharmacology
ketanserin: PD, pharmacology
metoclopramide: PD, pharmacology
metoclopramide: DO, drug dose
phenylbiguanide: DO, drug dose
phenylbiguanide: PD, pharmacology
serotonin: DO, drug dose
serotonin: PD, pharmacology
bemesetron
zacopride: PD, pharmacology
zacopride: DO, drug dose

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ACCESSION NUMBER: 90239165 EMBASE
DOCUMENT NUMBER: 1990239165
TITLE: Mediation of 5-hydroxytryptamine-induced tachycardia in the pig by the putative 5-HT4 receptor.
AUTHOR: Villalon C.M.; Den Boer M.O.; Heiligers J.P.C.; Saxena P.R.
CORPORATE SOURCE: Department of Pharmacology, Fac. Medicine/Health Sciences, Erasmus University, Post Box 1738,3000 DR Rotterdam, Netherlands
SOURCE: British Journal of Pharmacology, (1990) Vol. 100, No. 4, pp. 665-667.
ISSN: 0007-1188 CODEN: BJPCBM
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 911213
Last Updated on STN: 911213

AB Intravenous bolus injections of 5-hydroxytryptamine (5-HT; 3, 10 and 30 μg kg-1), 5-methoxytryptamine (5-MeO-T; 3, 10 and 30 μg kg-1), renzapride (BRL 24924; 3, 10, 30 and 100 μg kg-1) and isoprenaline (0.03, 0.1 and 0.3 μg kg-1) to anaesthetized pigs increased heart rate by, respectively, 22 ± 3, 44 ± 3 and 65 ± 4 beats min-1 (5-HT; n = 17); 12 ± 1, 26 ± 2 and 44 ± 4 beats min-1 (5-MeO-T; n = 15), 5 ± 2, 11 ± 2, 18 ± 4 and 37 ± 5 beats min-1 (renzapride; n = 8) and 17 ± 2, 46 ± 3 and 75 ± 3 beats min-1 (isoprenaline; n = 13). The responses to 5-HT, 5-MeO-T and renzapride were antagonized by ICS 205-930 (1 and 3 mg kg-1, i.v.), which did not modify the increases in heart rate by isoprenaline. Renzapride showed tachyphylaxis and attenuated the responses to 5-HT. These findings indicate that 5-HT elicits tachycardia in the pig by acting on a novel receptor, either similar or identical to the 5-HT4 receptor identified in mouse brain colliculi.

CT Medical Descriptors:
***tachycardia**
blood pressure
heart rate
swine
tachyphylaxis
animal experiment
nonhuman
intravenous drug administration
article
priority journal
Drug Descriptors:

serotonin 4 receptor
*tropisetron
*renzapride: PD, pharmacology
*renzapride: DO, drug dose
***5 methoxytryptamine: PD, pharmacology**
***5 methoxytryptamine: DO, drug dose**
*serotonin: PD, pharmacology
*serotonin: DO, drug dose
isoprenaline

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ACCESSION NUMBER: 87102731 EMBASE
DOCUMENT NUMBER: 1987102731
TITLE: Vascular responsiveness to serotonin metabolites in mineralocorticoid hypertension.
AUTHOR: Thompson L.P.; Webb R.C.
CORPORATE SOURCE: Department of Physiology, University of Michigan, Ann Arbor, MI 48109, United States
SOURCE: Hypertension, (1987) Vol. 9, No. 3, pp. 277-281. CODEN: HPRTDN
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
018 Cardiovascular Diseases and Cardiovascular Surgery
005 General Pathology and Pathological Anatomy
028 Urology and Nephrology
LANGUAGE: English
ENTRY DATE: Entered STN: 911211
Last Updated on STN: 911211

AB This study characterizes vascular responsiveness to serotonin and its metabolites and to several monoamines that are structurally related to serotonin in deoxycorticosterone acetate (DOCA)-salt hypertension. Mesenteric arteries from normotensive and hypertensive rats were excised and cut into helical strips for isometric force recording. Dose-response curves to serotonin in arteries from hypertensive rats were shifted significantly to the left compared with those in arteries from normotensive rats (ED25: DOCA-treated = 2.4 x 10-8 M; control = 17.1 x 10-8 M). Contractile responses to 5-hydroxyindole acetic acid and 5-hydroxytryptophol were greater in mesenteric arteries from hypertensive rats, whereas reactivity to 5-methoxytryptamine and melatonin in arteries from hypertensive rats did not differ from that in arteries from normotensive rats. Mesenteric arteries from both rat groups were unresponsive to the serotonin metabolite N-acetylserotonin. Contractile responses to 5,6-dihydroxytryptamine and 6-hydroxytryptamine were greater in mesenteric arteries from hypertensive rats, whereas responsiveness to 3-hydroxytryptamine in hypertensive arteries did not differ from normotensive values. Contractile responses to serotonin and its metabolites and to the structurally related monoamines were inhibited by the serotonergic antagonist ketanserin. These results demonstrate that vascular sensitivity to serotonin is increased in DOCA-hypertensive rats. Based on the experiments with serotonin metabolites and with other monoamines, the increased responsiveness to these compounds appears to be related to the structural location of hydroxyl and amine moieties.

CT Medical Descriptors:
*dose response
*drug comparison
*drug efficacy
*drug metabolism
***hypertension**

*mesenteric artery
*pharmacology
*serotonin metabolism
*tachyphylaxis
rat
cardiovascular system
priority journal
peripheral vascular system
pharmacokinetics
drug response
drug administration
preliminary communication
methodology
nonhuman
great blood vessel
animal experiment
Drug Descriptors:
*deoxycorticosterone acetate
*ketanserin
*mineralocorticoid
*5 hydroxyindoleacetic acid
*5 hydroxytryptophol
***5 methoxytryptamine**
*5,6 dihydroxytryptamine
*melatonin
*n acetylserotonin
*oxidopamine
*serotonin

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ACCESSION NUMBER: 84193474 EMBASE
DOCUMENT NUMBER: 1984193474
TITLE: Vascular serotonin receptors and blood pressure regulation.
AUTHOR: Cohen M.L.
CORPORATE SOURCE: Department of Cardiovascular Pharmacology, The Lilly Research Laboratories, Eli Lilly and Company, Indianapolis, IN, United States
SOURCE: Drug Development Research, (1984) Vol. 4, No. 3, pp. 301-313.
CODEN: DDREDK
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
030 Pharmacology
018 Cardiovascular Diseases and Cardiovascular Surgery
LANGUAGE: English
ENTRY DATE: Entered STN: 911210
Last Updated on STN: 911210

AB In most vascular beds, receptors mediating contraction to serotonin are of the 5HT2 type (defined by [3H]-spiperone binding in brain tissue). Research on vascular serotonin receptors has been prompted by the development of ketanserin, a potent 5HT2-receptor antagonist. Recent data suggest that ketanserin also possesses α-receptor antagonist activity and that this properly accounts for its antihypertensive activity in spontaneously hypertensive rats (SHR). The multiple blocking activities of ketanserin have prompted a search for more selective 5HT2-receptor antagonists to elucidate the role of vascular serotonin receptors in blood pressure regulation. Consequently, 1-(1-naphthyl)piperazine (1-NP) and LY53857, an ergoline derivative, have

been identified as potent and highly selective 5HT2-receptor antagonists in vascular tissue. 1-(1-naphthyl)piperazine and LY53857 show approximately 2,000- and 300,000-fold greater affinity, respectively, for 5HT2-receptor than for α-receptors compared to a 60-fold selectivity of ketanserin. However, neither 1-NP nor LY53857 lowered blood pressure in the SHR in doses that markedly shifted the pressure response to serotonin but did not antagonize α-receptors. Furthermore, blood pressure reduction in the SHR correlated poorly with the ability of several '5HT2-receptor antagonists' to bind to 5HT2-receptors and correlated extremely well with the binding of these agents to α-receptors. Thus, in SHR, 1) antihypertensive activity of ketanserin occurred in doses that block α-receptors and not at lower doses that block serotonin receptors, 2) more specific serotonin antagonists that did not block α-receptors in vivo did not lower blood pressure, and 3) the reduction in blood pressure produced by a series of serotonin receptor antagonists correlated with their ability to block α-receptors but not 5HT2-receptors.

CT Medical Descriptors:
*4 isopropyl 7 methylergoline 9 carboxylic acid 2 hydroxy 3 pentyl ester maleate
*blood pressure
*drug interaction
***hypertension**
*serotonin h 3
spontaneously hypertensive rat
cardiovascular system
human
nonhuman
therapy
animal model
review
Drug Descriptors:
*(3 chlorophenyl)piperazine
*1 (1 naphthyl)piperazine
*1 (3 trifluoromethylphenyl)piperazine
***5 methoxytryptamine**
*5,6 dihydroxytryptamine
*alpha adrenergic receptor
*amitriptyline
*benzoctamine
*cinanserin
*cyproheptadine
*haloperidol
*ketanserin
*mepiprazole
*methysergide
*mianserin
*serotonin
*serotonin 2 receptor
*spiperone
*trazodone
*tryptamine
1 isopropyl 6 methylergoline 8 carboxylic acid 2 hydroxy 1 methylpropyl ester

L74 ANSWER 31 OF 36 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 85097942 EMBASE
DOCUMENT NUMBER: 1985097942
TITLE: Three distinct subtypes of serotonergic receptors mediate

the triphasic blood pressure response to serotonin in rats.
AUTHOR: Kalkman H.O.; Engel G.; Hoyer D.
CORPORATE SOURCE: Preclinical Research Department, SANDOZ Ltd., CH-4002 Basle, Switzerland
SOURCE: Journal of Hypertension, (1984) Vol. 2, No. SUPPL. 3, pp. 143-145.
CODEN: JOHYD3
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
018 Cardiovascular Diseases and Cardiovascular Surgery
003 Endocrinology
LANGUAGE: English
ENTRY DATE: Entered STN: 911210
Last Updated on STN: 911210
CT Medical Descriptors:
*5 methoxy 3 (1,2,3,6 tetrahydro 4 pyridyl) 1h indole succinate
*bezold jarisch reflex
*blood pressure
***bradycardia**
*drug antagonism
*drug comparison
*drug mechanism
*drug potentiation
*drug receptor binding
***hypotension**
*pharmacokinetics
*serotonin h 3
*pressor response
hypertension
rat
heart
cardiovascular system
nervous system
intravenous drug administration
nonhuman
etiology
animal experiment
animal cell
Drug Descriptors:
*2 dipropylamino 8 hydroxytetralin
***5 methoxytryptamine**
*5 methyltryptamine
*5,6 dihydroxytryptamine
*tropisetron
*indorenate
*ketanserin
*metoclopramide
*serotonin
*serotonin receptor
*tryptamine
serotonin antagonist
radioisotope

L74 ANSWER 32 OF 36 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 83216540 EMBASE
DOCUMENT NUMBER: 1983216540
TITLE: Multiple serotonin receptors and their physiological significance.

AUTHOR: Peroutka S.J.; Snyder S.H.
CORPORATE SOURCE: Dep. Neurosci., Johns Hopkins Univ. Sch. Med., Baltimore, MD 21205, United States
SOURCE: Federation Proceedings, (1983) Vol. 42, No. 2, pp. 213-217. CODEN: FEPRA7
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
018 Cardiovascular Diseases and Cardiovascular Surgery
008 Neurology and Neurosurgery
030 Pharmacology
LANGUAGE: English
ENTRY DATE: Entered STN: 911209
Last Updated on STN: 911209

AB Identification of multiple receptors for neurotransmitters has had important theoretical and practical therapeutic relevance. With the advent of receptor-binding techniques, the ability to detect heterogeneity of receptors has been greatly enhanced. There appear to be multiple serotonin (5-HT) receptors in the central nervous system. At least two distinct 5-HT receptors can be differentiated by binding techniques. 5-HT1 sites are labeled preferentially by [3H]5-HT, whereas [3H]spiroperidol selectively labels 5-HT2 receptors. 5-HT and other agonists display 50-1000 times greater affinity for 5-HT1 than 5-HT2 sites, whereas most known 5-HT antagonists have 100-1000 times greater affinity for 5-HT2 than 5-HT1 receptors. Ergot-related drugs, such as LSD and lisuride, have similar affinities for 5-HT1 and 5-HT2 receptors. Drug potencies in blocking 5-HT behavioral effects in rodents and in antagonizing vascular effects of 5-HT in several blood vessel systems correlate best with influences on 5-HT2 receptors. In some adenylate cyclase systems drug effects on the 5-HT response of adenylate cyclase correlate with 5-HT1 receptor affinity. Chronic treatment with antidepressants lowers the numbers of 5-HT2 but not 5-HT1 receptors. With most antidepressants the reduction of 5-HT2 receptor site number is greater than the reduction in β-adrenergic receptors. Thus, influences of antidepressants on 5-HT2 receptors may provide a useful predictive test for antidepressant drug action.

CT Medical Descriptors:
*behavior
*blood pressure
*central nervous system
*drug efficacy
*drug mechanism
*drug receptor binding
***hypertension**
*lysergide h 3
*serotonin h 3
*spiperone h 3
cardiovascular system
pharmacokinetics
short survey
nonhuman
autonomic nervous system
Drug Descriptors:
***5 methoxytryptamine**
*5,6 dihydroxytryptamine
*amitriptyline
*bufotenine
*cinanserin
*cyproheptadine
*pipamperone

*fluoxetine
*haloperidol
*ketanserin
*lisuride
*lysergide
*metergoline
*methysergide
*mianserin
*neurotransmitter
*quipazine
*serotonin
*serotonin receptor
*spiperone
*tryptamine
radioisotope

L74 ANSWER 33 OF 36 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 83026117 EMBASE
DOCUMENT NUMBER: 1983026117
TITLE: Total and local hemodynamic changes in rats following intramuscular administration of a radioprotective mixture of cystamine and mexamine.
AUTHOR: Kuna P.; Volenec K.; Dostal M.
CORPORATE SOURCE: Purkyne Med. Res. Inst., Hradec Kralove, Czechoslovakia
SOURCE: Sbornik Vedeckych Praci Lekarske Fakulty Karlovy University v Hradci Kralove, (1982) Vol. 25, No. 1, pp. 105-112.
CODEN: SVLKAO
COUNTRY: Czechoslovakia
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: Czech; Russian
ENTRY DATE: Entered STN: 911209
Last Updated on STN: 911209
CT Medical Descriptors:
*blood flow
*femur
*heart output
***hypotension**
*intestine
*salivary gland
*skin
*spleen
rat
heart
bone
digestive system
animal experiment
nonhuman
cardiovascular system
mouth
small intestine
Drug Descriptors:
***5 methoxytryptamine**
*cystamine

L74 ANSWER 34 OF 36 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 82047694 EMBASE

DOCUMENT NUMBER: 1982047694
TITLE: Quantitation of urinary normetanephrine and metanephrine by reversed-phase extraction and mass-fragmentographic analysis.
AUTHOR: Canfell C.; Binder S.R.; Khayam-Bashi H.
CORPORATE SOURCE: Dept. Lab. Med., Univ. California, San Francisco, CA 94110, United States
SOURCE: Clinical Chemistry, (1982) Vol. 28, No. 1, pp. 25-28.
CODEN: CLCHAU
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
029 Clinical Biochemistry
LANGUAGE: English
ENTRY DATE: Entered STN: 911209
Last Updated on STN: 911209

AB Hydrolyzed urine with added ring-trideuterated and normetanephrine and metanephrine is applied to wet C18-reversed-phase minicolumns. The 'metaneprhines' are eluted, dried, derivatized with pentafluoropropionic anhydride, and analyzed with the gas chromatograph-mass spectrometer. Ions for the nondeuterated and trideuterated compounds are monitored at m/z 458 and 461, respectively. For both normetanephrine and metanephrine, the standard curve is linear over the range 10-2000 μg/L and the procedure has adequate precision both within-run (CV < 3%) and between-day (CV < 7%). Alkaline pH in the extraction is important for optimal analytical recovery. We have examined the potential value of untimed urine specimens for screening purposes and compared 24-h urine concentrations of these analytes in normotensive and hypertensive persons.

CT Medical Descriptors:
*4 hydroxy 3 methoxyphenyllactic acid
*drug determination
hypertension
mass fragmentography
reversed phase liquid chromatography
reversed phase extraction
urine
cardiovascular system
methodology
Drug Descriptors:
***5 methoxytryptamine**
*dihydroxyphenylacetic acid
*dopamine
*etacrynic acid
*furosemide
*guanethidine
*homovanillic acid
*hydralazine
*hydrochlorothiazide
*levodopa
*metadrenalin
*methyldopa
*metoprolol
*normetadrenalin
*oxedrine
*propranolol
*reserpine
*spironolactone
*triamterene
*trifluoperazine
*vanilmandelic acid

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ACCESSION NUMBER: 82091387 EMBASE
DOCUMENT NUMBER: 1982091387
TITLE: Comparison of the contraction produced by various tryptamine analogues on human basilar arterial and rat aortic strips in vitro.
AUTHOR: Forster C.; Whalley E.T.
CORPORATE SOURCE: Dept. Pharmacol., Med. Sch., Univ., Manchester M13 9PT, United Kingdom
SOURCE: Cephalalgia, (1981) Vol. 1, No. 4, pp. 217-221.
CODEN: CEPHDF
COUNTRY: Norway
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
008 Neurology and Neurosurgery
018 Cardiovascular Diseases and Cardiovascular Surgery
029 Clinical Biochemistry
LANGUAGE: English
ENTRY DATE: Entered STN: 911209
Last Updated on STN: 911209

AB The effect of various closely related analogues of 5-hydroxytryptamine were studied on the human basilar arterial and rat aortic strips in vitro. All analogues (except 5-methoxytryptamine) contracted both preparations producing maximal responses equivalent to that obtained with 5-hydroxytryptamine. Maximum responses to 5-methoxytryptamine were equivalent to and only 60% of the maximum obtained with 5-hydroxytryptamine on human basilar artery and rat aorta, respectively. The order of potency of the analogues on the human basilar artery was different from that obtained on the rat aorta. 5-methyltryptamine, N-methyltryptamine and tryptamine were equipotent on both tissues, whereas 5-hydroxytryptamine and 5-methoxytryptamine were 229 and 296 times more potent, respectively, on the human basilar artery compared to the rat aorta. Both tissues appear to be deficient in monoamine oxidase, since nialamide or iproniazid did not potentiate responses to tryptamine. It is concluded that the receptor type mediating contraction of the human basilar artery to 5-hydroxytryptamine is different from the classical smooth muscle D-receptor.

CT Medical Descriptors:
*aorta
*artery muscle
*basilar artery
***brain vasospasm**
*n methyltryptamine
*smooth muscle contractility
artery occlusion
in vitro study
human cell
animal experiment
rat
normal human
great blood vessel
peripheral vascular system
central nervous system
Drug Descriptors:
***5 methoxytryptamine**
*5 methyltryptamine
*iproniazid
*nialamide

*serotonin
*tryptamine

L74 ANSWER 36 OF 36 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 77098028 EMBASE
DOCUMENT NUMBER: 1977098028
TITLE: Acute cardiovascular responses to radioprotective mixture of cystamine and 5 methoxytryptamine in rats.
AUTHOR: Kuna P.
CORPORATE SOURCE: Purkyne Med. Res. Inst., Hradec Kralove, Czechoslovakia
SOURCE: Acta Biologica et Medica Germanica, (1975) Vol. 34, No. 11-12, pp. 1843-1849.
CODEN: ABMGAJ
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
014 Radiology
030 Pharmacology
023 Nuclear Medicine
018 Cardiovascular Diseases and Cardiovascular Surgery
LANGUAGE: English
AB I.p. administration of radioprotective mixture of cystamine (18 mg base/kg) and 5 methoxytryptamine (3 mg base/kg) to anesthetized rats induced the depression of hemodynamics. Decrease of cardiac output, hypotension, bradycardia, increase in peripheral vascular resistance, the escape of plasma from the vascular stream, pronounced diminution of blood flow in the spleen and other tissues were determined. Pharmacological properties of the protective mixture can contribute to its radioprotective efficiency in the whole mammalian organism.
CT Medical Descriptors:
***bradycardia**
*cardiovascular system
*drug mixture
*heart output
*hemodynamics
***hypotension**
*radiation protection
*rat
theoretical study
intraperitoneal drug administration
Drug Descriptors:
***5 methoxytryptamine**
*cystamine
*evans blue
*ferrous citrate fe 59
*heparin
*pentobarbital
*rubidium chloride rb 86
radioisotope

=> fil embase
FILE 'EMBASE' ENTERED AT 10:45:48 ON 06 OCT 2005
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FILE COVERS 1974 TO 29 Sep 2005 (20050929/ED)

EMBASE has been reloaded. Enter HELP RLOAD for details.

This file contains CAS Registry Numbers for easy and accurate

substance identification.

=> d l73 ibib ab 1-7

L73 ANSWER 1 OF 7 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 2004368502 EMBASE
TITLE: Antioxidative role of nitric oxide on copper toxicity to a chlorophycean alga, Chlorella.
AUTHOR: **Singh A.K.**; Sharma L.; Mallick N.
CORPORATE SOURCE: N. Mallick, Agric. and Food Eng. Department, Indian Institute of Technology, -721 302, Kharagpur, India. nm@agfe.iitkgp.ernet.in
SOURCE: Ecotoxicology and Environmental Safety, (2004) Vol. 59, No. 2, pp. 223-227.
Refs: 22
ISSN: 0147-6513 CODEN: EESADV
PUBLISHER IDENT.: S 0147-6513(03)00205-7
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 046 Environmental Health and Pollution Control
052 Toxicology
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20040916
Last Updated on STN: 20040916

AB The response of Chlorella vulgaris to copper exposure was investigated under laboratory batch culture conditions. Increased toxicity of Cu with respect to photosynthetic carbon fixation, O(2) evolution, chlorophyll fluorescence, and oxidative burst was observed for N-NH(4) (+)-grown cultures. The addition of sodium nitroprusside, a nitric oxide (NO) donor, in combination with Cu to N-NH(4)(+)-grown Chlorella not only lowered the inhibition levels of carbon fixation, O (2) evolution, and maximum quantum yield of PS II, but also significantly reduced the oxidative burst. The protective action of sodium nitroprusside was, however, arrested in cultures in which sodium nitroprusside was supplemented in combination with 2-(4-carboxyphenyl)-4,4,5,5-tetramethylimidazoline-1-oxyl-3-oxide, a specific **scavenger** of NO in the experimental system. The N-NO(3)(-)-grown Chlorella depicted less sensitivity to Cu compared to its N-NH(4)(+)-grown counterpart. The N-NO(3)(-)-, N-NH(4)(+)-, and N-NH(4)(+)+sodium nitroprusside-grown Chlorella did not show any significant differences with respect to their Cu uptake potential. The role of NO as an antioxidant is discussed.

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ACCESSION NUMBER: 2003346864 EMBASE
TITLE: Toxicology and free radicals **scavenging** property of Tamra bhasma.
AUTHOR: Pattanaik N.; **Singh A.V.**; Pandey R.S.; Singh B.K.; Kumar M.; Dixit S.K.; Tripathi Y.B.
CORPORATE SOURCE: Dr. Y.B. Tripathi, Department of Medicinal Chemistry, Institute of Medical Sciences, Banaras Hindu University, Varanasi-221005, India. yaminitripathi@epatra.com
SOURCE: Indian Journal of Clinical Biochemistry, (2003) Vol. 18, No. 2, pp. 181-189.
Refs: 15
ISSN: 0970-1915 CODEN: IJCBEY
COUNTRY: India

DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20030911
Last Updated on STN: 20030911

AB Free radicals are implicated in various chronic diseases. There has always been a search for new antioxidants. In this paper we have investigated Tamra bhasma, a metallic ayurvedic preparation. It is a time-tested medicine in Ayurveda and is in clinical use for various ailments specifically the free radical mediated diseases. Our results show that Tamra bhasma inhibits lipid peroxidation (LPO), prevents the rate of aerial oxidation of reduced glutathione (GSH) content and induces the activity of superoxide dismutase (SOD) in rat liver homogenate in the bi-phasic manner. The drug was orally given for 7, 15 and 30 days in different doses. Best protective response was found at the dose of 0.5mg/100g body weight in albino rats, although it showed some histopathological changes at the dose of 20mg/100g body weight. The results suggest that this Ayurvedic preparation is not merely a source of copper metal, but it is a strong anti-oxidant with no detectable adverse effect in lower doses of therapeutic range.

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ACCESSION NUMBER: 2003319206 EMBASE
TITLE: Oxidative degradation of malachite green by Fenton generated hydroxyl radicals in aqueous acidic media.
AUTHOR: **Dutta K.**; Bhattacharjee S.; Chaudhuri B.; Mukhopadhyay S.
CORPORATE SOURCE: S. Mukhopadhyay, Department of Chemistry, Jadavpur University, Raja S.C. Mullick Road, Calcutta, India. subrataju@vsnl.net
SOURCE: Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, (2003) Vol. 38, No. 7, pp. 1311-1326.
Refs: 65
ISSN: 1093-4529 CODEN: JATEF
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 046 Environmental Health and Pollution Control
052 Toxicology
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20030904
Last Updated on STN: 20030904

AB Fenton-generated hydroxyl radicals removes the color of the malachite green, a basic dye with triphenylmethane group, almost (.apprx.98%) completely in wcakly acidic aqueous media possibly through oxidative degradation pathways as evidenced from a remarkable lowering in the COD value of the product mixture in comparison to the title dye under identical conditions and almost full quenching of the reaction in presence of hydroxyl radical **scavengers.** The dye can most effectively be degraded at dye:Fe(2+):H(2)O(2) molar ratio of 1:3.3:81.7 for 1.08 x 10(-5) mol dm(-3) dye at pH 2.5-2.8 and at 299K. The rate law of the dye degradation process appears to be: -d[dye]/dt=k[dye] [Fe(2+)]0.79 [H(2)O(2)]0.12, where k=(33±5) (dm(3) mol(-1))0.91 s(-1) at 299K. Salts like NaCl or NaBr retard the degradation rate markedly whereas SO(4)(2-) or ClO(4)(-) are rather innocent. In presence of Cl(-), the radical reaction: ClOH.ovrhdot.(-) + Fe(2+)→Cl(-)+HO(-)+Fe3+ may

account for the gross lowering of degradation rate. The results may be helpful for designing the treatment plants of wastewater containing dyes with triphenylmethane group.

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ACCESSION NUMBER: 2002380313 EMBASE
TITLE: Chemical oxidation of C. I. Reactive red 2 using fenton-like reactions.
AUTHOR: **Dutta K.**; Bhattacharjee S.; Chaudhuri B.; Mukhopadhyay S.
CORPORATE SOURCE: K. Dutta, Department of Chemistry, Jadavpur University, Calcutta 700 032, India. subrataju@vsnl.net
SOURCE: Journal of Environmental Monitoring, (2002) Vol. 4, No. 5, pp. 754-760.
Refs: 73
ISSN: 1464-0325 CODEN: JEMOFW
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 029 Clinical Biochemistry
046 Environmental Health and Pollution Control
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20021114
Last Updated on STN: 20021114

AB A detailed investigation on the kinetics of the oxidative degradation of a reactive dye, C. I. Reactive Red 2 by hydroxyl radicals generated by H(2)O(2) and Fe(2+) has been carried out in aqueous acidic media. Effects of different parameters like initial concentration of dye, H(2)O(2), Fe(2+), pH of the solution, reaction temperature and added electrolytes on the oxidation process have been studied. The results indicate that 1.63 x 10(-4) mol dm(-3) dye can be most effectively degraded at a dye: Fe(2+): H(2)O(2) molar ratio of 1:0.22:8.13 at pH .apprx. 2.7 and at 299 K. The addition of excess 2-propanol or t-butyl alcohol, well known **scavengers** of hydroxyl radicals, almost stopped the degradation of the dye indicating the absence of any possible reductive pathways in the degradation. The results may be useful for designing the treatment systems of wastewater containing various reactive dyes.

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ACCESSION NUMBER: 1998208005 EMBASE
TITLE: Mechanism of biochemical action of substituted 4-methylbenzopyran-2-ones. Part I: Dioxygenated 4-methylcoumarins as superb antioxidant and radical **scavenging** agents.
AUTHOR: Raj H.G.; Parmar V.S.; Jain S.C.; Goel S.; Poonam; Himanshu P.; Malhotra S.; **Singh A.**; Olsen C.E.; Wengel J.
CORPORATE SOURCE: V.S. Parmar, Department of Chemistry, University of Delhi, 110 007 Dellhi, India
SOURCE: Bioorganic and Medicinal Chemistry, (1998) Vol. 6, No. 6, pp. 833-839.
Refs: 28
ISSN: 0968-0896 CODEN: BMECEP
PUBLISHER IDENT.: S 0968-0896(98)00043-1
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index

LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 19980727
Last Updated on STN: 19980727

AB Twenty-three 4-methylcoumarins bearing different functionalities have been examined for the first time for their effect on NADPH-catalysed liver-microsomal lipid peroxidation with a view to establish structure-activity relationship. Dihydroxy- and diacetoxy-4-methylcoumarins produced dramatic inhibition of lipid peroxidation. 7,8-Diacetoxy-4-methylcoumarin and 7,8-dihydroxy-4-methylcoumarin were found to possess superb antioxidant and radical **scavenging** activities. Copyright (C) 1998 Elsevier Science Ltd.

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ACCESSION NUMBER: 94239862 EMBASE
DOCUMENT NUMBER: 1994239862
TITLE: CuZn superoxide dismutase: Intraorganellar distribution in peroxisomes.
AUTHOR: Singh I.; Dhaunsi G.S.; Orak J.K.; Rajagopalan P.R.; **Singh A.K.**
CORPORATE SOURCE: Department of Pediatrics, Medical University of South Carolina, 171 Ashley Avenue,Charleston, SC 29425, United States
SOURCE: Annals of the New York Academy of Sciences, (1994) Vol. 723, pp. 406-408.
ISSN: 0077-8923 CODEN: ANYAA
COUNTRY: United States
DOCUMENT TYPE: Journal; Conference Article
FILE SEGMENT: 029 Clinical Biochemistry
LANGUAGE: English
ENTRY DATE: Entered STN: 940817
Last Updated on STN: 940817

L73 ANSWER 7 OF 7 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 93171460 EMBASE
DOCUMENT NUMBER: 1993171460
TITLE: Alterations in free radical **scavenging** mechanisms following blood-brain barrier disruption.
AUTHOR: **Shukla A.**; Shukla R.; Dikshit M.; Srimal R.C.
CORPORATE SOURCE: Head, Pharmacology Division, Central Drug Research Institute,Lucknow 226001, India
SOURCE: Free Radical Biology and Medicine, (1993) Vol. 15, No. 1, pp. 97-100.
ISSN: 0891-5849 CODEN: FRBMEH
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 008 Neurology and Neurosurgery
029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 930711
Last Updated on STN: 930711

AB It has been reported earlier that rat microvessels which constitute the blood-brain barrier (BBB) are rich in free radical **scavenging** enzymes. In the present investigation, BBB of rat was disrupted by intravenous infusion of the hypertonic saline and changes in enzymes - namely, superoxide dismutase (SOD), catalase (CAT), glutathione peroxidase (GPx), and glutathione reductase (GR) - were evaluated in the brain

microvessels at 30 min after the intravenous administration of hypertonic saline, being the time of peak effect. There was a significant increase in the activities of CAT (40%), GPx (26%), and SOD (16%) over the control values. In addition, within 90 min BBB was found to be reestablished and the levels of enzymes reverted to normal. Malondialdehyde (MDA) levels and activity of lactate dehydrogenase (LDH) remained unaltered during and following disruption, suggesting that there was no change in the membrane lipid environment. Similarly, there was no cell lysis. The results suggest that the disruption of BBB following hypertonic saline administration mgiht be due to an increase in the generation of free radicals in the brain microvessels.

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